

TWENTY-FIRST CATALOGUE

OF THE

Arkansas Industrial University

FAYETTEVILLE, WASHINGTON COUNTY, ARK.

FOR THE

Year Ending November 30, 1893,

AND

ANNOUNCEMENT FOR 1894.

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FORT SMITH, ARK.:  
J. H. MAYERS & CO., PRINTERS,  
1893.



ARKANSAS INDUSTRIAL UNIVERSITY, FAYETTEVILLE.

1894

## JANUARY

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## ANNOUNCEMENTS FOR 1893-94.

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### 1893.

September 4.—Session begins at the Branch Normal College at Pine Bluff.

October 3.—Preliminary course in Medical College at Little Rock begins.

November 1.—Session of the Medical College at Little Rock begins.

### 1894.

March 6.—First term begins in all departments at Fayetteville.

March 6-9.—Examinations for admission in all departments at Fayetteville.

April 8.—Session of the Medical College at Little Rock ends.

May 25.—First term ends in all departments at Fayetteville.

May 28.—Second term begins in all departments at Fayetteville.

June 5.—Session ends at the Branch Normal College at Pine Bluff.

August 24.—Second term ends in all departments at Fayetteville.

August 27.—Third term begins in all departments at Fayetteville.

December 3.—Baccalaureate sermon.

December 3.—Commencements in all departments at Fayetteville.

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Assistant Superintendent.

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Machine and Blacksmith Shops.

LORENZO ELLIS,  
Engineer.

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AT NEWPORT.

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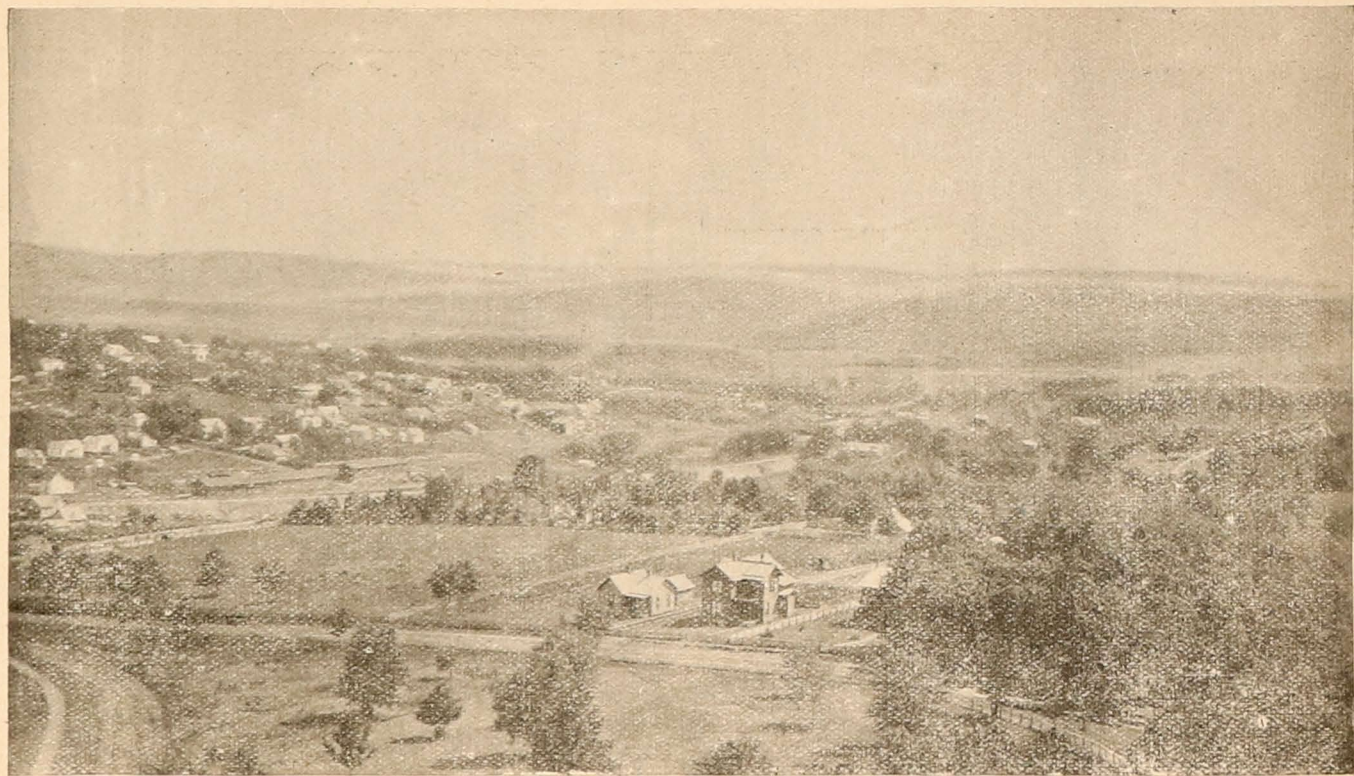
GEORGE B. IRBY,  
Assistant Agriculturalist of the Experiment Station.

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AT CAMDEN.

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C. L. NEWMAN,  
Assistant Agriculturalist of the Experiment Station.



SOUTH VIEW FROM THE UNIVERSITY.

## THE UNIVERSITY AND THE STATE.

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The University is at the head of the public educational system of the State of Arkansas. It seeks to foster the higher educational interests of the State, broadly and generously interpreted, and to make provision for the demands of advanced scholarship in as many lines as its means will permit. It is the effort of its Faculty and Board of Trustees, from year to year, to bring it into still closer connection with the public schools of the State, and in connection with them to afford to all the youth of either sex ample facilities for liberal education in literature, science and the industrial arts, and for the professional studies.

Through the aid received from the United States and from the State of Arkansas, the University is enabled to offer free tuition, except in the studies of law and medicine, and thus to open wide her doors to all seekers of learning.

The institution was established in accordance with an act of Congress, making a grant of land for its benefit, and in accordance with an act of the General Assembly of this State, carrying out the object of said grant.

### LOCATION.

The University, except its Medical and Law Colleges and Branch Normal College, is located at Fayetteville, Washington County in Northwest Arkansas among the Ozark Mountains, and is more than sixteen hundred feet above the sea level. The location is thought to be unsurpassed by any other locality in the State in salubrity of climate, beauty of surrounding scenery, fertility of soil, variety and perfection of agricultural and horticultural productions, and in the morality and intelligence of its people.

Students may reach Fayetteville from both the north and the south by the Texas branch of the St. Louis and San Francisco Railroad, now running two trains daily each way, connecting on the south with the Little Rock and Fort Smith Railroad at Van Buren.

#### THE AGRICULTURAL EXPERIMENT STATION.

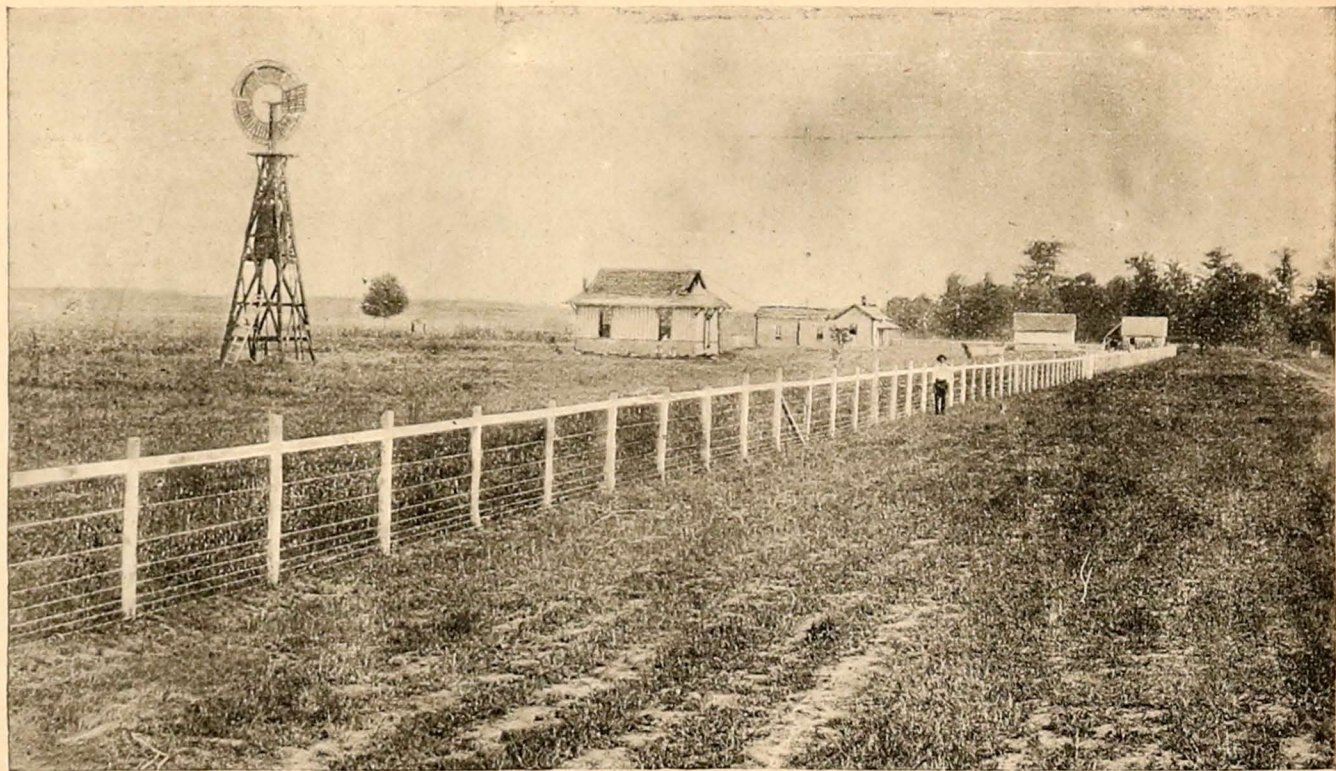
This department of the University was established in 1887 and is maintained by the National Government. The object of the station is to investigate problems of immediate practical importance in agriculture. Both in the field and in the laboratories experiments are made on soils, fertilizers, diseases of domestic animals, kinds of food, and in dairying and other matters. The results of these experiments are published in bulletins, which are sent gratis to the farmers and stock raisers of Arkansas and to other citizens interested in agriculture. Branch stations at Newport and Camden make experiments applying to the climate and soils of those localities.

For the agricultural bulletins apply to the Director of the station at Fayetteville.

#### BUILDINGS.

The Main Building of the University (see frontispiece) is a magnificent structure of brick with stone trimmings and basement. It is four stories in height. It occupies three sides of a quadrangle and has a frontage of 214 feet and a depth of 124 feet.

In the north wing are situated the Armory in the basement, the Chapel on the first floor, the Library and Reading Room on the second, and the Engineering Drawing Room on the third floor. In the south wing the Mechanical Engineering Laboratory occupies the basement, the hall for boys of the Preparatory Department the first floor, the hall for girls the second floor, lecture room, class rooms and offices of the Engineering Department the third floor, and the Natural History Museum the fourth floor.



EXPERIMENT STATION AT NEWPORT.

The main front of the building contains the offices of the President and Commandant, and recitation rooms for mathematics, music and for the Preparatory Department on the first floor; the second floor is occupied by class rooms for elocution, English, ancient languages, modern languages, mathematics, history, vocal music, and the offices of the Secretary of the Board of Trustees and the Principal of the Preparatory Department; on the third floor are situated the class rooms and laboratories of Biology and Geology; the literary societies occupy the fourth floor.

This building covers an area of 26,108 square feet, and contains seventy rooms, together with broad corridors and ample stairways. As a safeguard against fire and to insure uniform temperature, the building is heated throughout by steam.

#### THE NEW CHEMICAL BUILDING

is made of brick and is fifty feet front by sixty feet deep. It is two stories high and contains a laboratory for physical measurements and separate laboratories for general chemistry, quantitative and qualitative analysis, store rooms for apparatus, and two lecture rooms. It is fitted with gas and water and with the most modern appliances for technical work. It will accommodate about a hundred students.

#### THE OLD DORMITORY

is a two-story frame building. It contains a dining hall, kitchens and store rooms, and will accommodate about fifty students.

#### THE NEW DORMITORY,

in accordance with legislative enactment, was erected by the Board of Trustees in 1887, and opened to the use of students in the spring of 1888. It is a substantial brick building, three stories high, containing over forty rooms. In finish and appearance, it is a model structure. The rooms are large, airy, well ventilated and lighted, and open into broad corridors ex-

tending lengthwise through the building: The entrances are five in number, three in front, which open upon a broad veranda, and two in the rear. As to location, every precaution has been taken to insure good health to its occupants, and a suite of rooms is now being fitted up for hospital purposes.

#### THE NEW BATH HOUSE.

In the fall of 1893 a new bath house was erected for the benefit of the students of the dormitories. It is 16x18 feet in size, contains three tubs, and is otherwise completely equipped.

#### AGRICULTURAL BUILDINGS.

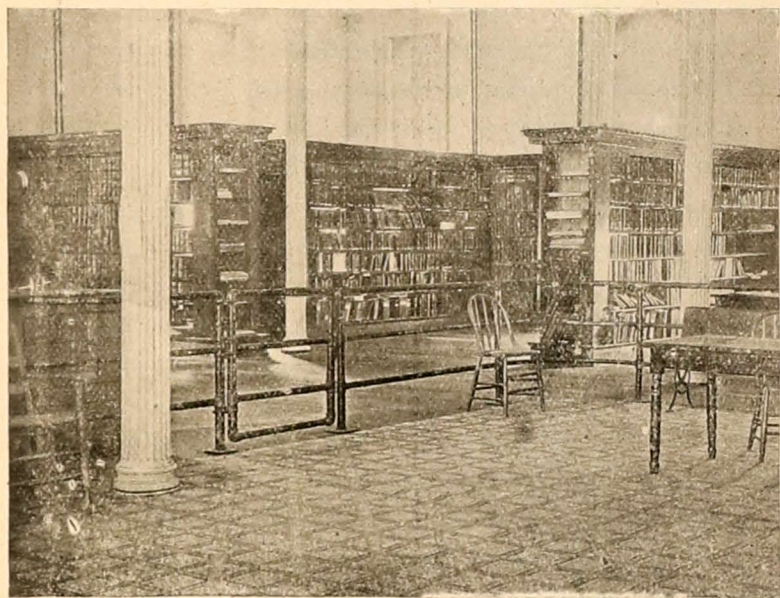
The building of the Agricultural Experiment Station is of brick, one story in height. It contains the office of the Director, the laboratories of the Chemist, Horticulturist, Veterinarian and Entomologist, the museum, and several commodious store rooms. Connected with the Department of Agriculture are a large barn, stock shed, dairy house, fruit house and other necessary outbuildings.

#### THE SHOP BUILDING.

The Shop Building was erected in the spring of 1889. It is of corrugated iron, 170 feet long, 40 feet wide, and one story high, with ample light and ventilation. The Wood Room is 40x60 feet in size, the Metal Room 40x40, the Forge Room 40x25, and the Foundry 40x45 feet. During the fall of 1892 an addition to the shops, 20x40 feet, was built almost entirely by the students.

## THE LIBRARY.

The book room of the Library has shelf space for 14,000 volumes, with room for expansion. It now contains about 7000 bound volumes and 5500 unbound volumes and pamphlets. The increase during the year has been about 1000 bound volumes and 500 pamphlets. The Dewey decimal system of classification and the Cutter book-numbers have been in successful use for the last two years and a half, and author and subject-card catalogues are being rapidly prepared.



SECTION OF LIBRARY.

The Reading Room is furnished with the principal magazines and reviews, general and scientific, the St Louis and Little Rock daily papers and nearly all the county papers of Arkansas.

## MUSEUMS.

The University has two Museums, which are of great value in furnishing materials for the illustration of scientific studies and of the industrial arts.

## MUSEUM OF NATURAL HISTORY.

The Museum occupies the fourth floor of the south wing of the main building. Adjoining it are two rooms, one being used for the storage of alcoholic specimens, the other for taxidermy. The collections in the Museum at present comprise the following :

- 150 birds and mammals, 60 species.
- 130 reptiles and amphibians, 40 species.
- 300 fishes, 50 species.
- 1000 insects and other invertebrates, 200 species.
- 11 skeletons.
- 3500 plants, 1500 species.
- 1500 fossils, 230 species.
- 400 minerals, 200 species.

A few archæological specimens, also a few anatomical and physiological preparations.

Except in the case of minerals and fossils, the most of our collections are from Arkansas.

Prof. Meek has deposited in the Museum his private collection of about 250 species, consisting mostly of the lower vertebrates.

Our aim is to make the Museum of more practical and educational value, and to this end we would invite the co-operation of all the people of the State in completing our collections in one or more directions indicated below :

1. An exhibition of valuable rock materials used in construction, architecture and the arts.
2. An exhibition of native ores, with specimens illustrating the metallurgy of useful metals.

3. Collections of plants and animals of the country, including fossil species

4. Historical and archæological collections.

The Museum will gratefully acknowledge donations of various objects, and the donors may be sure that anything of value sent to it will be carefully preserved and duly credited to the donor. Collections in the hands of private parties are likely to be soon scattered or spoiled through improper care and handling. The Museum is now prepared to receive collections on deposit, and to preserve and display them under the owner's name until called for. In this way owners of interesting collections are usually much more certain of having their collections permanently preserved, and the collections will be seen by more people and become more useful.

#### INDUSTRIAL MUSEUM.

Among the facilities for instruction contained in the equipment of the University, may be mentioned :

A Dean steam pump with air chamber, water and steam cylinders and valve chambers sectioned, so that a student may see the working parts.

A Cameron steam pump with the steam cylinder sectioned.

A Blake steam pump in full working order.

Two small horizontal and one vertical steam engine made by the students in the shop.

A fire hydrant in working order.

A set of three successive portions of plate from a boiler showing effect of scale in producing overheating and bagging.

Samples of articles of manufacture form a large part of the collection and are found to be of great service in acquainting students with the construction of such articles. Among these may be mentioned link belting, steam-pipe covering, grease cups, injectors in sections, water meters, insulated wire, lead cables and lubricating oils. Models of a large number of machines of various kinds are also in the collection.

## LABORATORIES.

In the Laboratories of the University opportunities are afforded for practical instruction in chemistry, mineralogy, physics, botany, zoology, entomology, horticulture, and in civil, mechanical and electrical engineering.

## MINERALOGICAL LABORATORY.

This Laboratory has work benches for eight students, and is supplied with all requisites for blow-pipe work and the general examination and assaying of minerals.

## PHYSICAL LABORATORY.

The new Physical Laboratory will accommodate twenty-eight students. It is fitted with a small dynamo and a supply of general apparatus for work in practical physics.

## BIOLOGICAL LABORATORY.

The Biological Laboratory will accommodate twenty-six students. It is well equipped with microscopes, microtomes, micro-chemical reagents, and the special apparatus for bacteriological work. A large aquarium furnishes means for the preservation of living animals for classes in zoology. All the apparatus necessary for the collection, mounting and preservation of plants and insects is supplied in abundance. Each table is fitted with gas and distilled water, and each student is supplied with all the chemicals and apparatus needed in botanical and zoological dissections, and in the hardening, sectioning, staining and mounting of material for histological work. A microphotographic outfit, and an incubator for embryological work complete its equipment.

## GEOLOGICAL LABORATORY.

This Laboratory is provided with aneroid barometers, compasses, levels, pedometers, etc., for field work, and the necessary drawing apparatus for the construction of geological sec-

tions and for making geological maps. It also contains apparatus for grinding sections of rock for microscopic examination. The paleontological collections contain fossils characterizing the different geological ages, being especially rich in coal plants.

*The Wood-working Shop* is equipped with eighteen well appointed work benches with tools, seven turning lathes, one pattern maker's lathe, one double circular saw, one scroll saw, one band saw, one reversible shaping machine, one planing machine, one buzz planer, one steam glue heater and one trimmer.

*The Equipment of the Forging Shop* at present consists of seven forges of the most improved design, seven anvils and seven sets of tools, consisting of hand-hammer, tongs, calipers, steel rule, steel square, hot and cold cutters, file, flatter, fullers, swedges, punches, heading tools, etc. The forges are supplied with power blast, and an exhaust fan draws off the smoke from the forges. This shop has also a portable machinist's forge, a blacksmith's post drill, and a combined punch, shear and bar cutter.

*The Moulding Room and Foundry* are equipped with a Colliau cupola which will melt from 200 pounds to one ton of iron at once, one brass furnace, one core oven, nine sand troughs and moulders' benches combined, twelve sets of moulder's tools, consisting of heart and square trowel, slickers, rammers, riddle, flask, swab, water pot, shovel, lifters, drawer, spikes, etc., six ladles from 100 to 5 pounds capacity, and an assortment of flasks, and other necessities for a complete foundry.

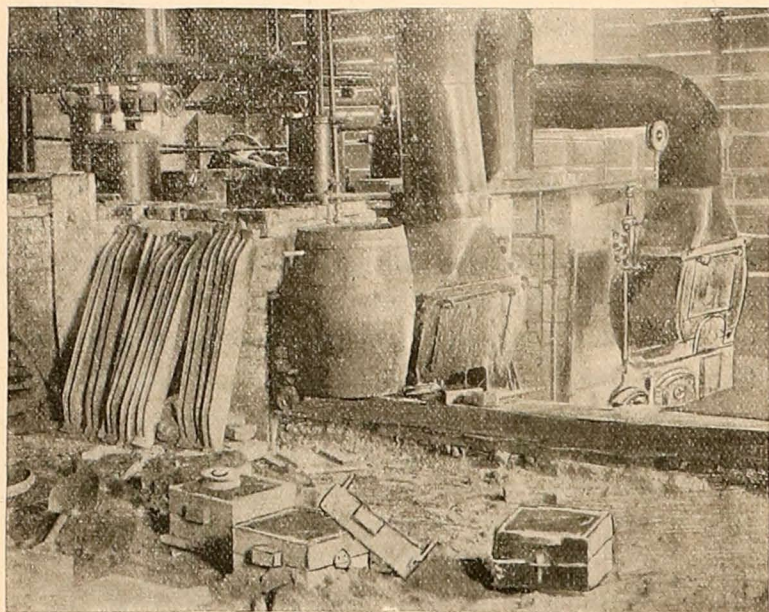
*The Equipment of the Machine Shop* consists of thirteen work benches with vices, sets of tools and closets, three 14-inch engine lathes, one 19 inch engine lathe, one speed lathe, one planer 24x24x72 inches, one planer 10x10x24, one Universal milling machine, one double wheel emery grinding machine, one Universal cutter grinder, one drill press, one twist drill grinder, one grindstone, chucks and other appliances for use

on the lathes, planer, etc. This shop is well equipped with hammers, steel rules, steel squares, spring dividers, chisels, twist drills, taps, dies, tap wrenches, die stocks, reamers, pipe dies, files of all sizes and shapes, wrenches, arbors, lathe-dogs, squares, scales, calipers (inside and outside), machine and hand-cutting tools, a surface guage, a surface plate, a micrometer caliper, a set of caliper gauges, a protractor and many other tools. The machinery is driven by a 25-horse-power Westinghouse engine.

*Capacity of Shops.*—Seventy-five students can be accommodated in the shops at one time, divided among the rooms as follows:

Wood-working Room.....	24
Metal-working Room.....	18
Forging Room.....	9
Foundry.....	20
Tool Room.....	1
Engine and Boiler Rooms.....	3

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 75


BOILER ROOM AND FOUNDRY.

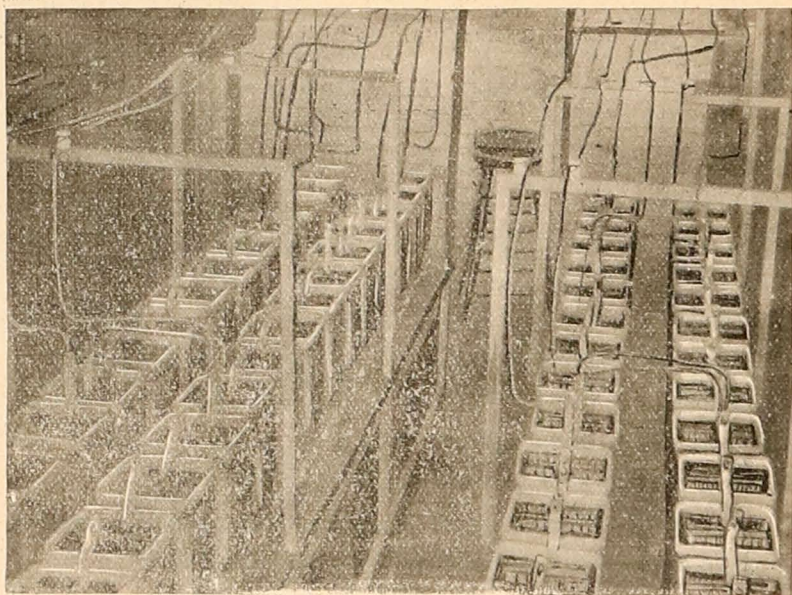
*The Boiler Room* contains two horizontal flue tubular boilers set in brick work, aggregating 60-horse power. These are used for heating the main building and running the shops. A 60-horse power return tubular boiler set in a three-travel furnace and having a new design of iron stack has been recently added for power purposes and experimental work. The equipment includes exhaust and live steam heaters, duplex feed pumps, injectors, steam gauges, etc.

*Drawing.*—The equipment includes the usual tables and stools; and among the special apparatus and instruments may be mentioned the plainmeter, pantograph, blue-print frame, traverse table, odontograph, slide rule, sets of railroad and machine curves, roof pitches, etc.

*Surveying.*—For the work in railroad, land and city surveying, the equipment furnishes chains, tapes, plumb bobs, a Locke level, aneroid barometer, sextant, Y level, transits with solar attachment, plane table, etc. Not the least valuable part of the equipment is a surrounding country which offers problems in most of the varieties of work which meet the practical surveyor. Each year, during the summer, a party of engineers goes into camp one week for practice in survey and location of railway lines.

*Electrical Laboratory.*—The Electrical Laboratory is furnished with the following equipments: Galvanometers of various types, tangent, sine, Desprez d'Arsonval, ballistic, astatic and reflecting; ammeters and voltmeters of different makes, magnetometers, a whetstone bridge, wattmeter, a bank of incandescent lamps, a large set of German silver resistances for dynamo work, and a sixty-cell storage battery arranged especially for experimental work.

In addition to this the Laboratory has available for the supply of current, tests, etc., the electric lighting and power transmission plant, which is conveniently connected with the instrument room.



STORAGE BATTERY.

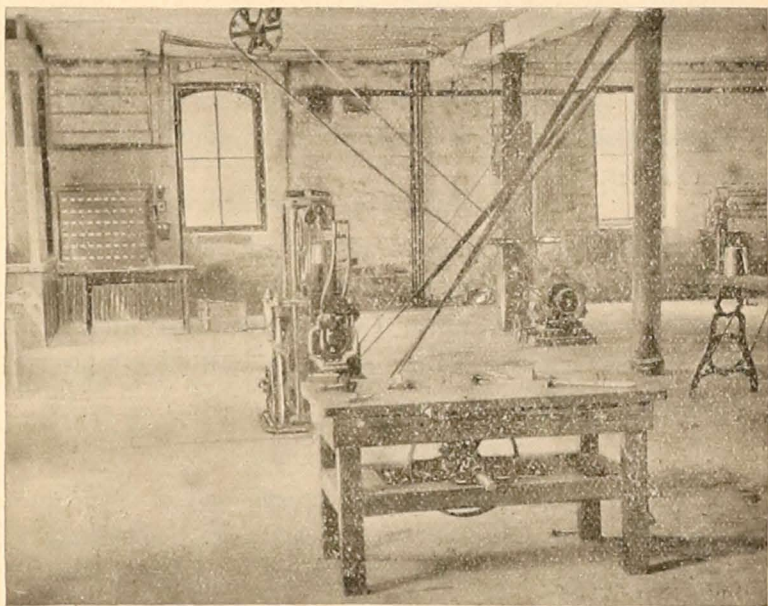
*Experimental Engineering.*—The boilers generating steam for heating and power also furnish practice in determining the amount of steam made for each pound of coal burned. The amount of moisture in the steam is also tested by a calorimeter constructed in the shops. A feed pump and an injector are so arranged that comparative trials may be made for efficiency as boiler feeders. The engine used to run the shops and electric light plant is used to furnish practice in measurement of power from indicator cards and the pony brake. During the session of 1892 a series of tests were made to determine the water consumption of the engine per horse power per hour, in which the weight of steam used was determined by condensing the exhaust in a feed water heater at atmospheric pressure, and weighing the amount delivered.

A Richle testing machine, run by a 10-horse power motor and capable of exerting a pull or pressure of 60,000 pounds, has been installed and used in experimental work upon the

materials used in buildings, bridges and machinery. A practical application has been made in determining the tensile strength of the steel plates used in the two 30-horse power boilers for the Branch Normal shops, and the 60-horse power boiler for the Arkansas Industrial University shops.

A 2000-pound cement testing machine is used to determine the tensile strength of various cements, and their resistance to crushing. A saw for stone cutting has been designed and constructed for the purpose of cutting out specimens for tensile and crushing tests.

A complete incandescent electric light plant has been installed, and is used for lighting the main building, and for experimental work. A 180-light dynamo and a 10-horse power motor supply power to run the machinery of the Laboratories and current for lighting the buildings and for laboratory work. A storage battery capable of supplying a current at 110 volts for thirty or forty incandescent lamps of 16-candle power, is used for lighting and laboratory work.



ENGINEERING LABORATORY.

## GENERAL INFORMATION.

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### REQUIRED, ELECTIVE, AND OPTIONAL STUDIES.

Each student must have not less than fifteen recitations a week or their equivalent in laboratory work, two hours work in the laboratory being considered equivalent to one hour's recitation. When fewer than fifteen recitations per week, or their equivalent, are specified in any course, the student must elect studies to supply the deficiency. Electives taken from the studies of a class one year below have full value, but, if more than one year below, their value will be fixed by the Faculty. Students are not allowed to take additional studies to exceed the equivalent of twenty recitation hours in all, except by permission of the Faculty.

### SPECIAL STUDENTS.

Persons of mature years and judgment who have passed the examinations for admission are allowed to pursue special courses of study, but students must, in all cases, satisfy their professors that they are prepared for the work of the class they seek to enter.

### CLASSIFICATION OF STUDENTS.

A student is a member of the highest class with which he has the equivalent of nine (9) recitations per week; provided that two hours of laboratory, shop, or farm work, drawing or sight reading, required by his course of study, be counted as equivalent to one hour of recitation.

### TERM EXAMINATIONS.

1. Examinations shall be held at the end of each term. The standard is 75 per cent

2. If a student's grade be less than 75 per cent, he may still be allowed to take up the subject which follows naturally, provided that he is not, in the opinion of the head of the de-

partment controlling said subject and of the instructors directly concerned, incompetent; but at the first opportunity that is offered to the student thus failing to review the work on which he has failed, he must pass successfully a special examination, or go over the work at once in class.

3. In case of repeated failure to pass, the student may still continue his advanced work if he has proven himself competent and if he is not, in the opinion of the head of the department and the instructors directly concerned, likely to be overworked on taking up again the subject on which he has failed. If he has shown himself not incompetent to continue his advanced work, but only unable to do so for lack of time or on account of conflict of studies, he may at the discretion of the Faculty be allowed to drop some other study.

#### LITERARY SOCIETIES.

The students' literary societies, three in number, meet weekly in their respective halls, and much interest is manifested.

#### UNIVERSITY MAGAZINE.

The University Magazine is published monthly during the school year by an editorial board elected by the students. The editors will be glad to send the Magazine free to any high school or academy in the State. A prize of twenty-five dollars is offered to the student of the University who writes the best original contribution during the year.

#### LECTURE COURSE.

The A. I. U. Lecture Association, composed of representatives of the faculty, students, and citizens of Fayetteville, is at the time of the issuing of this catalogue, just completing the first year of its existence. The course of lectures and entertainments provided by the Association has been very popular with students and citizens.

#### LECTURES FOR 1893.

John Temple Graves, "The Reign of the Demagogue".....	May 24.
James Lane Allen, "The Literature of the South".....	July 4.
Dr. A. A. Berle, "Bismarck and the German Empire".....	July 21.
Dr. James Hedley, "The Sunny Side of Life".....	August 1.
Lotus Glee Club.....	October 24.
Fred. Emerson Brooks.....	November 17.

## AIDS TO MORAL AND RELIGIOUS INSTRUCTION.

Religious exercises are held regularly in the University Chapel at the beginning of each daily session. Students are required to attend.

The churches of Fayetteville cordially welcome the students to their Sunday-schools and various meetings for prayer and religious instruction. The denominations represented in the city are Baptist, Presbyterian, Cumberland Presbyterian, Methodist, Protestant Episcopal, Christian, and Roman Catholic. Many of the students are actively engaged in the work of the different church societies and guilds, and the Young Men's Christian Association holds regular meetings in the new dormitory.

## THE ATHLETIC ASSOCIATION OF THE ARKANSAS INDUSTRIAL UNIVERSITY.

J. F. MAYES (A. I. U., '82), President.

J. T. STINSON (Iowa Agr. Coll., '90), Vice-President.

W. P. MASON ('97), Treasurer and Secretary.

The purposes of this organization are to foster and encourage the growing interest which the student body is manifesting in the development of the physical man.

*EXTRACTS FROM THE CONSTITUTION.*

*Article I, Section 3.* The Association is composed of the A. I. U. Athletic Club, the A. I. U. Tennis Club, the A. I. U. Base-ball Club, and the A. I. U. Foot-ball Club.

*Art. I, Sec. 4.* And it is further provided that if any other club, organized by the students of the University for the practice of any sport, game, or exercise not already represented by one of the members of the Association, shall make a written application for membership in the Association, and the said application shall be approved by the Governing Body of the Association hereinafter provided for, the petitioning club shall become a member in full standing of the Association with all the rights and privileges pertaining to such membership.

*Art. I, Sec. 5.* The Governing Body of the Association shall be styled the Council of the Athletic Association \* \* \*

*Art. III, Sec. 1.* The Council of the Association shall consist of two members of the University faculty, the presidents of the clubs, and the officers of the council \* \* \* \* \*

*Art. III, Sec. 3.* The Council of the Association shall be officered as follows: (1) a president, (2) a vice-president, and (3) a secretary and treasurer.

*Art. III, Sec. 4.* The Council shall elect its officers from without itself, and \* \* \* the President of the Council shall be chosen from without the Association.

*Art. III, Sec. 6.* The Council shall have general supervision over the clubs and shall adopt such measures as it deems advisable, to foster and encourage the clubs in their respective objects.

#### EXTRACTS FROM THE BY-LAWS.

11. Each member of the Association shall each term give an exhibition under the supervision of the Council, provided that the Foot-ball Club shall give an exhibition in the fall term only.

12. The Council shall cause two field-days to be held during each college year.

13. The Council shall have general control of all grounds belonging to or placed at the disposal of the Athletic Association.

#### SALE OF ARDENT SPIRITS NEAR THE UNIVERSITY.

By an act of the General Assembly of the State of Arkansas, approved March 6, 1875, it is unlawful for any person to sell or give any vinous or ardent spirits within three miles of the Arkansas Industrial University, unless it be prescribed by a regular practicing physician for medicinal purposes.

## EXPENSES.

Matriculation, charged all new students .....	\$ 5 00
Tuition per session, charged all except beneficiary students .....	10 00
Music fees (see music, page —).	
Furniture for dormitory students, at cost, usually about	15 00
Board in dormitory at cost, per month, from \$ 7 00 to	8 00
Board in private families, per month, from. 12 00 to	15 00
Uniform suit, purchased by student, from.. 13 00 to	17 50
Washing, per month, about .....	1 00

The necessary expenses for a student who wishes to live cheaply are:

Board in dormitory, 9 months, about.....	\$ 72 00
Washing, nine months, about.....	9 00
Furniture, first year only.....	15 00
Matriculation, first year only.....	5 00

Total expenses first year, apart from books and clothes, about ..... \$ 101 00

Total expenses afterward, apart from books and clothes, about..... \$ 81 00

Students leaving the University frequently sell their furniture at a small reduction.

Rooms in the University dormitories are free, but occupants provide their furniture, fuel and lights. If there are not rooms enough for all, preference is given to Arkansas students. An officer of the University lives in the building and superintends it, and the rooms are regularly inspected by the Faculty.

Students boarding elsewhere are under the supervision of the President of the University and are allowed to board only at places approved by him.

## BOARDING FOR YOUNG LADIES.

There is at present no special residence for girls. They are assisted in finding board in respectable families; but the Fac-

ulty is not so situated as to exercise constant supervision over them out of college hours. Parents at a distance who send a daughter to the University, should therefore be well satisfied as to her discretion, or else should place her under control of the family with whom she boards. The following ministers, pastors of the local churches named, kindly offer their services in assisting the President to secure suitable boarding places for young ladies: Rev. S. W. Davies, Presbyterian; Rev. S. Anderson, Methodist; Rev. J. T. Malloy, Cumberland Presbyterian; Rev. N. M. Ragland, Christian, and Rev. J. D. Cook, Baptist; also the Rev. J. J. Vaulx, rector of St. Paul's Church (Episcopal).

#### ARRIVAL OF STUDENTS.

Students, on arriving at Fayetteville, must report at once to the President of the University. No student will be allowed to recite in any class until properly enrolled, but will be held responsible for his conduct from the time of his arrival in Fayetteville.

#### CONDITIONS OF ADMISSION INTO THE UNIVERSITY.

All applicants for admission into the University must, if required, furnish evidence of good moral character.

Dismissed or expelled students from other institutions of recognized standing may be refused admission to the University.

#### PREPARATION FOR THE FRESHMAN CLASS.

1. *English.* Meiklejohn's English Grammar with analysis, or a full equivalent; a composition of 200 to 300 words, correct in spelling, punctuation, paragraphing, and grammar, upon a subject announced at the time of the examination. In 1894 the subject will be taken from Irving's Alhambra, or Shakespeare's Julius Cæsar, or Henry VIII; in 1895 from Scott's Ivanhoe, or Shakespeare's Merchant of Venice, or Julius Cæsar.

2. *Arithmetic.* The examination will be taken from Wentworth's Grammar School Arithmetic, the whole of which is re-

quired. Teachers preparing candidates for entrance should, in teaching arithmetic, require them to analyze every example capable of analysis, or give a thorough course in mental arithmetic. Students who are not quick at analysis in arithmetic usually make poor progress in higher mathematics.

3. *Algebra* to Quadratic Equations involving two unknown quantities, with special attention to factoring, the theory of exponents, and radicals. The examination will be taken from Robinson's University Algebra.

4. *Plane Geometry*. The first four books of Wentworth's Geometry.

5. *History*. The examination will be taken from Eggleston's History of the United States, from Hempstead's History of Arkansas, and from Appleton's History of the World.

6. *Geography*. Any complete manual, such as Harper's or Maury's, will give the preparation, if thoroughly mastered. Special attention is given to the geography of the United States and of Arkansas.

7. *Physiology*. Martin's Human Body, briefer course.

8. *Latin*. Jones's First Lessons in Latin complete, with all its references to Gildersleeve's Latin Grammar; Cæsar's Gallic War, four books, with questions on the implied grammar and on the subject matter, military equipment, etc. Kelsey's or Greenough's Cæsar is recommended. Latin is not required for admission except to the College of Liberal Arts or to the Normal School.

Candidates for the higher classes, or for the Freshman Class after beginning of session, will be examined also in subjects passed over by the class.

Each student should come prepared for all the studies in some one class. If he is behind in one or more studies, he becomes irregular, and is necessarily subject to many inconveniences, though he may be admitted and classified according to his attainments.

## SHECIMEN EXAMINATIONS FOR FRESHMAN CLASS

Examinations will be of the same general character as the following :

## I. MEIKLEJOHN'S ENGLISH GRAMMAR. 2 hours.

1. Tell all the different ways of distinguishing gender; illustrate each by example.

2. Name and define all the different kinds of pronouns.

3. Give distinction between strong (or irregular) and weak (or regular) verbs, and principal parts of one strong verb and of one weak verb. Give a complete synopsis of the verb *know* in the passive voice, using the third person singular.

4. Analyze carefully the following sentence, giving special attention to the relation of the subordinate clause to the principal clause: "The love of reading, *which* Gibbon *declared* he would not exchange for all the treasures of India, was, with Macaulay, a *main* element of happiness in one of the happiest lives *that* it has ever fallen to the lot of the biographer to *record*."

5. Parse the words italicized in the above sentence. Construe the words italicized in the following sentence: (1) They offered *Cæsar* the crown three *times*.

6. Name the prefixes and suffixes in the following words and tell what force they have: (1) Steward, (2) gainsay, (3) golden, (4) weakness, (5) forbid, (6) stagger, (7) misdeed, (8) trickster, (9) sparkle, (10) withstand.

7. Name following meters and mark accented syllables:

(a.) Brightest and best of the sons of the morning.

(b.) True wit is nature to advantage dressed.

(c.) In his chamber, weak and dying.

## II. ENGLISH COMPOSITION. 1 hour.

Write a composition of 200 to 300 words upon The Quarrel Between Brutus and Cassius, in Shakespeare's Julius Cæsar.

## III. ARITHMETIC. 1 hour.

First, second, third, fourth and fifth questions same as in examination for admission to High School, page—.

6. See Wentworth's Arithmetic, page 236, example 9.

7. See Wentworth's Arithmetic, page 261, example 5.

## IV. ALGEBRA. 1½ hours.

1. Simplify the following expressions by removing the parentheses and collecting like terms:

$$(a) -[b + \{ a - (d + a) \}]$$

$$(b) -[5x - (11y - 3x)] - [5y - (3x - 6y)]$$

2. Resolve the following into factors:

$$x^3+y^3, x^4-y^4, x^2-19x+90, 240+x-x^2, \text{ and } x^3-8.$$

3. Find the greatest common divisor of

$$8x^3-2x^2-53x-39 \text{ and } 4x^3-3x^2-24x-9.$$

4. Given:  $2x+3y+4z=20.$

$$3x+4y+5z=26.$$

$$3x+5y+6z=31.$$

To find the value of  $x, y, z.$

5. Find the cube root of

$$1-9x+39x^2-99x^3+156x^4-144x^5+64x^6.$$

6. Find the value of

$$(\sqrt{7}+5\sqrt{3})(2\sqrt{7}-5\sqrt{3});$$

and the value of  $x$  in

$$14-\sqrt{x-3}=6, \text{ and}$$

$$x^2+6x=27.$$

#### V. PLANE GEOMETRY. $1\frac{1}{2}$ hours.

Demonstrate the following propositions:

1. The three perpendiculars from the middle points of the sides of a triangle meet in the same point.
2. An inscribed angle is measured by one-half of its intercepted arc.
3. Upon a given straight line, describe a segment of a circle which shall contain a given angle.
4. If two triangles have their sides respectively parallel, or respectively perpendicular, they are similar.
5. If from a point without a circle a secant and a tangent are drawn, the tangent is a mean proportional between the whole secant and the extreme segment.

#### VI. U. S. HISTORY. $1\frac{1}{2}$ hours.

Tell all about the following:

1. De Soto. 2. The Battle of Guilford Court House. 3. The Missouri Compromise. 4. The Doctrine of State's Rights.

#### VII. GENERAL HISTORY. 1 hour.

Tell all about the following:

1. Cyrus the Great. 2. The Battle of Salamis. 3. Hannibal. 4. Alfred the Great. 5. Cardinal Richelieu.

#### VIII. GEOGRAPHY. $1\frac{1}{2}$ hours.

1. Name in their order twenty rivers flowing into the Atlantic Ocean or its arms between the Bay of Fundy and the Florida Keys.
2. Name the principal cities of Louisiana, Texas, Ohio, Illinois, Michigan and Minnesota (one city each), and describe their situation.

3. Describe the climate and productions of Mexico.

4 and 5. What and where are the following? Give exact location: Aconagua, Aral, Baikal, Bothnia, Ceylon, Delhi, Farewell, Formosa, Hecla, Munich, Ponchartrain, Sunda, Verde, Volga, Yukon.

#### IX. PHYSIOLOGY. 1 hour.

1. Describe the structure of the femur.
2. How does the blood-plasma differ from blood serum?
3. Describe the formation of a blood clot.
4. Define the terms "afferent," "efferent," "voluntary," "involuntary," "reflex."
5. Name and give the most important characteristics of eight of the principal tissues of the body.

#### X. LATIN. 2 hours.

Translate Cæsar's Gallic War, Book I, chapter 22, from *Prima luce* to *abstinebat*.

1. Give principal parts of *abesset*, *accurrit*, *teneri*, *cognovisse*, *instruit*.
2. Explain cases of *luce*, *equo*, *quem*, *ei*, *tempore*.
3. Explain uses of modes in *teneretur*, *teneri*, *fieret*.
4. Compare *prima*, *summus*, *proximum*, *longius*.
5. Give the whole indicative mode of *voluerit*, and the whole subjunctive of *abesset*, and translate the first person of each tense.
6. Decline *passibus*, *eum*, *quem*, *insignibus*, *uno*.
7. Parse *hostium*, *occupari*.

Translate Book II, chapter 32, from *ad hæc* to *dixerunt*.

#### Translate into Latin:

1. He will order the lieutenant to send soldiers as a relief to our men.
2. We are so many in number that we can easily keep their army from the march.
3. If they make peace with us, we shall go into that part where they wish us to be.
4. We cannot see the mountain, although it is of great height.
5. We shall march through Geneva at sunset, because we are not more than twenty miles distant.

Beside this, an oral examination is required.

#### ORDER OF EXAMINATIONS FOR ADMISSION.

*Tuesday, March 6.*—9 a. m., Registration of all students who are required to matriculate.

*Wednesday, March 7.*—9 to 12 m., Geometry and Physiology, Reading; 1 to 4 p. m., Algebra, Geography.

*Thursday, March 8.*—9 to 12 m., Arithmetic; 1 to 4 p. m., Latin, Reading, History of Arkansas.

*Friday, March 9.*—9 to 11 a. m., English Grammar and Analysis; 11 to 12 m., English Composition, Reading; 1 to 4 p. m., U. S. History, General History, Reading.

## LOCAL EXAMINATIONS.

Students living more than a hundred miles from the University may, by making satisfactory arrangements, obtain special local examinations two weeks before the beginning of each session. The questions will be sent to any principal of a school or county examiner who will supervise the examination for the candidate, provided such officer makes his application in time. Such application must reach the University as early as February 1st for admission for first term. The questions must be submitted by the superintendent or principal to the candidate under the usual restrictions of a written examination, and the questions and answers must be returned by the same officer to the University with his indorsement that the examination has been properly made. Candidates should in all cases return only fair and honest answers; otherwise they will be seriously embarrassed in their future courses. The candidate must secure the consent of the principal or superintendent who is to hold the examination.

## ADMISSIONS UPON ACCREDITED CERTIFICATES.

*Accredited Schools*—Any high school or academy whose course of instruction covers all the branches requisite for admission to the University, may be placed upon the accredited list of preparatory schools. Upon application from the principal of any high school or academy, an officer of the University will be sent as soon as possible to examine the course of study and methods of teaching. If his report is favorable, the school will be placed upon the accredited list and its graduates will be admitted to the Freshman Class without examination. Students of accredited schools who may not be graduates, will be excused from examination on subjects required for admission into the University, upon certificates of proficiency in such studies from the principal. A school once placed upon the accredited list will remain there until its administration is

changed or until a notification that the work is unsatisfactory is received from the University. Upon a change of administration, an application to be continued upon the list of accredited schools should be forwarded to the University. Such request may be granted without a new examination if the authorities can assure themselves that no prejudicial changes in the courses of study or in the thoroughness of instruction will be made.

The University will do all in its power to bring about that close and cordial relation which should bind together the various branches of the common school system.

#### LIST OF ACCREDITED SCHOOLS.

Fort Smith Public High School, Fort Smith, Ark.  
Rogers' Academy, Rogers, Ark.

#### APPOINTMENT OF BENEFICIARIES.

All appointments shall be completed, if possible, before the opening of the Spring term. The County Judges make the appointments and send them according to the directions below. If the appointee fails to appear at the University within twenty days after an appointment (except in case of sickness), he or she will be regarded as having declined the appointment, in which case it will be the duty of the President of the Faculty to notify the person making the appointment of such failure, and he, in turn, should make another appointment as soon thereafter as possible. The President of the Faculty shall continue to notify appointing officers until their respective number of appointees make their appearance at the University.

All the beneficiary students should be present at the opening of the Spring term, and unnecessary delay will lead to the forfeiture of their appointments.

#### QUALIFICATIONS.

The attention of County Judges is called to the fact that *no beneficiary student will be admitted unless he has the following qualifications:*

Students are not admitted until they have become familiar with the fundamental principles of arithmetic as far as fractions. In reading, they must be able to understand and intelligently render specimens of the grade of the Fifth Reader, must have a good knowledge of elementary English grammar, elementary geography, and the spelling of all words of the grade of the Fifth Reader. These qualifications are the test of admission at the beginning of the session; those applying later will be admitted only on the grade of the class. (See admission to Preparatory Department, p. —.)

#### FORMS OF APPOINTMENT.

Students who have been appointed beneficiaries must bring evidence of appointment in the following forms of notice, to be sent by the Judge of the County Court, in accordance with the sixth section of an act approved March 6, 1875:

[Form 1—Appointment.]

No. .... [To be given to the Student.]

To whom it may concern:

I hereby appoint.....of.....County,  
State of Arkansas, as a beneficiary to the Arkansas Industrial University.

Given under my hand this.....day of.....189....

Send a notice like the following to the President of the University, and one to the Secretary of the Board of Trustees, at Fayetteville:

[Form 2—Notice to President of University.]

.....Arkansas, }

To the.....University:

I hereby notify you that I have this day appointed.....of  
.....County, State of Arkansas, a beneficiary to the Arkansas Industrial University.

Given under my hand this.....day of.....189....

#### NUMBER OF BENEFICIARIES.

The number of beneficiaries is limited to one thousand, distributed to the counties of the State in proportion to the population of 1880, and in every case in which a county fails to

supply its quota of beneficiaries, the Governor is authorized to appoint such beneficiaries to the full number authorized by law; *provided* that such appointment may be vacated on application from a county so failing to fill its quota, but may be resupplied from some other county whose quota has not been filled:

COUNTIES	Beneficiaries.	COUNTIES.	Beneficiaries.
Arkansas.....	10	Lee.....	16
Ashley.....	13	Lincoln.....	12
Baxter.....	7	Little River.....	6
Benton.....	24	Logan.....	19
Boone.....	15	Lonoke.....	15
Bradley.....	8	Madison.....	15
Calhoun.....	7	Marion.....	10
Carroll.....	16	Miller.....	12
Chicot.....	12	Mississippi.....	9
Clay.....	13	Monroe.....	12
Clark.....	15	Montgomery.....	7
Cleburne.....	8	Nevada.....	17
Cleveland.....	10	Newton.....	6
Columbia.....	19	Ouachita.....	15
Conway.....	16	Perry.....	6
Craighead.....	8	Phillips.....	28
Crawford.....	11	Pike.....	3
Crittenden.....	11	Poinsett.....	7
Cross.....	6	Polk.....	3
Dallas.....	9	Pope.....	19
Desha.....	11	Prairie.....	10
Drew.....	15	Pulaski.....	45
Faulkner.....	17	Randolph.....	12
Franklin.....	18	Saline.....	11
Fulton.....	8	Scott.....	19
Garland.....	11	Searcy.....	7
Grant.....	8	Sebastian.....	28
Greene.....	9	Sevier.....	8
Hempstead.....	24	Sharp.....	12
Hot Springs.....	10	Stone.....	8
Howard.....	12	St Francis.....	10
Independence.....	21	Union.....	16
Izard.....	14	Van Buren.....	11
Jackson.....	15	Washington.....	30
Jefferson.....	20	White.....	21
Johnson.....	15	Woodruff.....	12
Lafayette.....	6	Yell.....	18
Lawrence.....	10		

There is also one "Honorary Scholarship" to each county, to be elected for superior merit and proficiency, from the public schools of each county, according to section 2, of act of July 23, 1868.

#### ABSENCES.

Absences from the University during the session are not permitted except for reasons of importance. The parent has, at all times, the right to withdraw his son entirely and finally,

without reason assigned ; but without so withdrawing him he cannot relieve him of the obligation to attend to his duties at the University. The incidental absences of students during the session are exceedingly disadvantageous, both to themselves and to the University. While, therefore, the Faculty permit them, in cases where propriety or urgent necessity seems to make them unavoidable, they hold it to be a duty to inquire into the reasons for which the permission is solicited.

No absences are permitted during the summer term for reasons that would not be valid at other times.

#### WITHDRAWAL OF STUDENTS.

Parents or guardians who wish to withdraw their children or wards from the University should write to the President stating their wishes. No honorable discharge will be given to a student under age, who is unable to produce the written application of his parent or guardian for his withdrawal, or if his number of demerits shall exceed the proportion of two hundred allowed during the session. Nor will an honorable discharge be given to a student under censure of any kind, whether for neglect of duty or other cause, even though he may have the consent of his parent or guardian for his withdrawal from the University.

## ORGANIZATION OF THE UNIVERSITY.

The following are the colleges, schools, and courses :

## I. AT FAYETTEVILLE.

1. The School of Agriculture.  
Farmer's Course.
2. The College of Mechanic Arts and Engineering.
  - (a.) Course in Mechanical Engineering.
  - (b.) Course in Civil Engineering.
  - (c.) Course in Electrical Engineering.
  - (d.) Manual Training Normal Course.
  - (e.) Stationary Engineer's Course.
  - (f.) Trades Course.
3. The College of Science.
  - (a.) Course of Chemistry.
  - (b.) Course in Botany and Zoology.
  - (c.) Course in Horticulture and Entomology.
  - (d.) Course in Geology.
  - (e.) Medical Preparatory Course.
4. The College of Liberal Arts.
  - (a.) Course in Arts with Mathematics.
  - (b.) Course in Arts with Modern Languages.
  - (c.) Course in Arts with Ancient Languages.
  - (d.) Course in Arts with History.
  - (e.) Graduate Courses.
5. The Normal School.  
Normal Course.
6. The Preparatory Department.
  - (a.) Agricultural Course.
  - (b.) Engineering and Manual Training Courses.
  - (c.) Scientific Course.
  - (d.) Classical Course.
7. The Agricultural Experiment Station.

## II. AT LITTLE ROCK.

8. The College of Medicine.  
Course in Medicine.

## III. AT PINE BLUFF.

9. Branch Normal College.
  - (a.) Normal Course.
  - (c.) Mechanical Course.

## DEPARTMENTS OF INSTRUCTION.

The arrangement of elective courses enables students to concentrate their work upon special lines or subjects, and each student is expected to complete the undergraduate studies of at least one language or science. The following rules for elective studies will be observed :

1. No study can be elected, unless the professor in charge deems the student prepared to pursue it.

2. No elective study shall be changed before the end of the term.

No professor shall be required to teach an elective course, unless three or more students pursue it.

## AGRICULTURAL DEPARTMENT.

A. E. MENKE, Superintendent.

W. B. BENTLEY, Adjunct Professor.

W. F. BATES, Assistant Instructor.

J. M. MOORE, Assistant Foreman.

I. (a.) *Elementary Dairy Husbandry.*

The primary principles of dairy work are taught by class-room instruction, accompanied with daily practical work in the dairy.

(b.) *Elementary Agriculture.*

The reasons for the various farm operations, and the conditions under which they can be most successfully accomplished form the subject matter of the instruction.

II. (a.) *Veterinary Anatomy*

Lectures and laboratory work five times a week in the first term.

(b.) *Veterinary Science.*

Lectures and demonstrations, three times a week in the second term; twice a week in the third.

III. (a.) *Horticulture.*

Class-room and practical work, four times a week in the first term.

(b.) *Advanced Agriculture.*

This class can be taken by those students only who have passed course I., and have some knowledge of chemistry and botany. Second term twice, third term once a week.

(c.) *Stock Breeding.*

Class-room work on the principles of improvement and selection according to Warfield, Sanders and Powell. Three times a week throughout the year.

(d.) *Advanced Dairy Husbandry.*

The management of large dairies, the principles of scientific feeding, the economic production of dairy products and other related topics. Four times a week the second and third terms.

## MECHANIC ARTS AND ENGINEERING.

C. V. KERR, Mechanical Engineering, Supt. Mech. Arts.

W. E. GOLDSBOROUGH, Electrical Engineering.

J. J. KNOCH, Civil Engineering.

MACK MARTIN, Machine Shops, Ass't Supt. Mech. Arts.

F. P. NICHOLAS, Wood Shops.

S. M. TAFF, Foundry.

W. D. ASH, Forge Shop.

C. S. DUGGANS, Engineer.

I. *Wood Working.*

Principles of carpentry and joinery; wood turning; pattern making; cabinet work. *Eight hours per week.*

II. (a) *Founding.*

Moulding; melting and pouring brass and iron; management of cupola. *Half year, eight hours per week.*

(b) *Forging:* Management of fire; drawing; welding; riveting; tempering. *Half year, eight hours per week.*

III. *Machinist Work (Freshman).*

Chipping and filing; turning; planing; milling; drilling; grinding; metal fitting and erection of machinery; millwrighting; care of engines and boilers. *Eight hours per week.*

## IV.

As a one year's course during the fourth year of the manual training course, the student may select one of the following:

(a.) Carpentry and cabinet-making.

- (b.) Pattern making and founding.
- (c.) Blacksmithing.
- (d.) Machine shop work.
- (e.) Management of boilers, engines, dynamos and electric light plants.
- (f.) Actual work of instructing classes in the different shops and in laying out series of exercises.

V. *Drawing.*

Selection and use of instruments; lettering; geometrical construction; tracing and blue printing; descriptive geometry and its application; design of machines, steam engines, boilers; maps and topographical drawing; stereotomy and applications; design of roofs and bridges; electrical design, etc. *Throughout the course*

VI. *Mechanics (Junior and Senior)*

Elementary and analytical treatment of statics and dynamics; resistance of materials; graphical statics; hydraulics; turbines.

VII. *Elements of Mechanism, and Machine Design (Junior).*

Theory of motion and velocity ratios; designs of gear wheels, cams, link motions; alignment of shafting; transmission of power by belts, hemp and wire ropes; theory of friction; selection and use of lubricants. *Two hours per week*

VIII. *Steam Engineering (Junior and Senior).*

- (1.) *The stationary engine:* Principles of construction and operation; study of existing types, vertical and horizontal, high-speed and Corliss engines.
- (2.) *Pumps:* Different types; boiler feed pumps, pulsometers, injectors; pumping engines.
- (3.) *Boilers:* Construction and management; fuel; chimney draft; types, tubular, water tube, sectional; valves and fittings.
- (4.) *Locomotive Engines:* Construction and management; study of forms adapted to different service; link motions; air brake; train resistance; railway practice.
- (5.) *Valve gears and governors:* Slide valves; Zeuner's and Bilgram's diagrams; movement of valves by eccentric and links; theory, construction, and adjustment of throttling, pendulum and shaft governors; balance of reciprocating parts.

- (6.) *Theory of compound engines:* Source of economy; principles of design; distribution of power.

IX. *Masonry Construction (Junior).*

Materials; stone and brick masonry foundations.  
*Third term, three hours per week.*

X. *Thermodynamics (Senior).*

Action of heat on perfect and imperfect gases; hot air, gas and steam engines, injectors; mechanical refrigeration, manufacture of ice.  
*Three hours per week.*

XI. *Engineering Laboratory (Senior).*

Tests of strength and other properties of materials of construction; measurement of friction of belts, gears and lubricants; measurement of power by indicator, brake and dynamometer; boiler tests to determine evaporation of water per pound of fuel; tensile and crushing tests of brick, stone, cement, etc.; tests of dynamos, motors and lamps. *Senior, four hours per week.*

XII. *Power Plants (Senior).*

- (1.) Study of steam and water power plants as illustrated by the best practice; specifications.  
(2.) Study of most approved methods of testing steam and gas engines, turbines, refrigerating machinery, etc.

XIII. *Surveying.*

- (1.) Care, use and adjustment of instruments; use of chain, tape, compass, transit, solar attachment, level, sextant and plane table; exercises in land, city, and mining surveying. *Sophomore.*  
(2.) *Railroad Surveying:* Reconnaissance, preliminary survey, location, profiling, establishing grade, location of curves and turnouts; measurement of embankments and cuts, estimates of volume and material used in construction; location and estimates for tunnels. *Junior.*  
(3.) *Hydraulic and Sanitary Surveying:* Location of waterworks, with details of estimates of cost; design and estimate of material required and cost of construction for a complete sewerage system. *Senior.*

(b) *Heat (Sophomore).*

Lectures and recitations three times, laboratory work once a week throughout the year. Text-book: Balfour Stewart.

III. (a) *Mineralogy (Junior.)*

Practical work daily during the second term.

(b) *Metallurgy (Senior.)*

Lectures and recitations three times a week throughout the year. Text-books: Howe, Phillips.

## MATHEMATICS AND LOGIC.

O. C. GRAY, Professor.

G. W. DROKE, Adjunct Professor.

This subject should be taught both practically and logically, thus promoting scientific investigation and mental discipline. It is not enough to find "answers," but the deductions must be based on established principles. First, the pupil performs the work in imitation of the teacher or author; then comparing facts learned, he reasons on the subject, consults the text and books of reference, makes the deduction, and applies the law to new cases. The power of original investigation and the faculty of invention are thus strengthened; and the student, by the inductive process of combining known principles and making new deductions, can anticipate the author in his demonstrations.

It is desirable that all students should supply themselves with drawing instruments; for much attention is paid to original investigations, in which at least the dividers and protractor are essential.

Mathematics to include trigonometry is required in all courses leading to graduation; and students of the engineering courses and of the mathematical course for B. A. are required to read pure mathematics through integral calculus. Students are advised to take the whole course of mathematics given below :

I. *Algebra, Geometry and Trigonometry (Freshman).*

Quadratic equations reviewed; ratio, proportion, progression, inequation, and differentiation; indeterminate coefficients; binomial theorem; logarithms (*Second term, five times a week*). Wentworth's Geometry, Book V to end with a variety of original and practical problems (*first term, five times a week*). Trigonometry, plane and spherical, with problems in latitude, longitude, and time (*third term*).

II. *Advanced Algebra, Analytical Geometry, Calculus (Sophomore).*

Development of functions; indeterminate analysis; Sturm's theorem and Horner's method of solving higher equations (*twice a week, first and second terms*). Loci and their equations; the straight line; the circle; systems of coordinates; the parabola; the ellipse; the hyperbola; higher plane curves; the point, right line, the plane and surfaces of revolution as treated in the geometry of three dimensions (*three times a week, first and second terms*). Differentiation of algebraic, exponential, logarithmic, trigonometrical and circular functions; successive differentiations; differential coefficients; implicit and compound functions (*five times a week, third term*).

III. *Calculus and Astronomy (Junior).*

Maclaurin's formula; Taylor's formula; evolutions of indeterminate expressions; maxima and minima of functions of one variable; elementary rules of integration; subordinate circular forms; separation by indeterminate coefficients; rationalization; formula for integration by parts; integration by infinite series; successive integration method of disposing of the constant of integration (*four times a week, first and second terms*). Descriptive astronomy (*third term*).

IV. *Senior Course in Mathematics.*

Theory of equations; determinants; advanced analytical geometry; mathematical astronomy; theory of least squares; quaternions.

V. *Logic (Junior).*

Jevon-Hill's logic. *First two terms, twice a week.*

## BIOLOGY AND GEOLOGY.

J. F. McNEILL, Professor.

S. E. MEEK, Adjunct Professor.

I. *General Biology (Freshman).*

A study of typical species of plants and animals, with reference to structure, development, and relationship. Recitations twice a week. Laboratory work, four hours a week. *Throughout the year.*

II. *Morphology and Classification of Flowering Plants (Sophomore).*

Lectures or recitations twice a week. Laboratory work, six hours a week. *Throughout the year.*

III. (a). *Cryptogamic Botany (Junior).*

Lectures or recitations twice a week. Laboratory work, six hours a week. *First term.*

(b). *Bacteriology.*

Laboratory work, ten hours a week. *Second term*

(c). *Physiological Botany.*

Lectures three times a week. Laboratory work, four hours a week. *Third Term.*

IV. *Advanced Botany (Senior).*

Reading and laboratory work, ten hours a week. *Throughout the year.*

V. (a). *Systematic Zoology (Sophomore).*

Lectures twice a week. Laboratory work in the classification of birds, mammals, reptiles and fishes, six hours a week. *First and second terms.*

(b). *Comparative Anatomy.*

Lectures twice a week. Laboratory work, six hours a week. *Third term.*

VI. *Comparative Anatomy of the Brain (Junior).*

This is a preparatory course for Psychology. Lectures and laboratory work, two hours a week. *Third term.*

- VII. (a.) *Histology (Junior).*  
Lectures three times a week. Laboratory work, four hours a week. *First and second terms.*
- (b.) *Embryology.*  
Lectures three times a week on general Embryology. Laboratory work on the development of the chick, four hours a week. *Third term.*
- VIII. *Advanced Zoology (Senior).*  
Reading and laboratory work, ten hours a week. *Throughout the year.*
- IX. (a.) *Structural Entomology (Junior).*  
Lectures three times a week. Laboratory work, four hours a week. *First term.*
- (b.) *Systematic Entomology.*  
Lectures three times a week. Laboratory work, four hours a week. *Second and third terms*
- X. *Economic Entomology (Senior).*  
Reading and laboratory and field work. *Throughout the year.*
- XI. (a.) *General Horticulture (Junior).*  
Lectures three times a week. Laboratory and field work, four hours a week. *Throughout the year.*
- (b.) *Practical Horticulture (Senior)*  
Reading and experimental work. *Throughout the year.*
- XII. *General Geology (Sophomore).*  
Structural, dynamical and physical, and survey methods. Recitations and lectures three times a week. Field work and laboratory practice, four hours a week. *First and second terms.*
- XIII. *Economic Geology (Junior).*  
Ore deposits and valuable rock material, three times a week. *Third term* This course follows Course XII, and is designed for civil and mechanical engineers and for students in chemistry.
- XIV. *Historical Geology (Junior).*  
Three times a week. Laboratory practice, four hours a week. *First and second terms.*

XV. *Paleontology (Senior).*

Five times a week. Lectures and laboratory practice. *Third term.*

XVI. *Agricultural Geology (Junior).*

Lectures and recitations three times a week.  
Field and laboratory work, four hours a week.  
This course follows Course XII, and is designed for students in agriculture. *Throughout the year.*

## PSYCHOLOGY AND ETHICS.

E. H. MURFEE, Professor.

These studies are taught inductively, no theory or doctrine being urged for acceptance which is not based upon a philosophical induction. The student is taught to subject every statement of fact or principle to the test of his own experience. The fullest and freest discussion of opposing views is encouraged. Recent researches in Physiological Psychology receive special attention. As a basis of this work the Professor in Biology will give lectures and laboratory practice in Neurology. All students whose courses require Psychology must attend the lectures in Neurology during the third term of the Junior year.

I. *Psychology (Senior).*

*Three times a week first and second terms.*

II. *Ethics (Senior).*

*Three times a week, third term.*

III. *Political Economy (Junior).*

*Twice a week throughout the year.*

## ENGLISH AND MODERN LANGUAGES.

R. H. WILLIS, Professor.

E. H. CARNALL, Adjunct Professor.

The subjects taught for undergraduates are the English (including Anglo-Saxon), German, French and Spanish languages and their history and literature. Italian will also be taught for music students and others, when the demand is sufficient.

For the lower classes in each language the aim is to acquire a practical and accurate use of the language as it exists to-day; and the only proper basis for this is an exact knowledge of grammatical forms and of the elementary principles of syntax. In the higher classes the languages are studied historically and philologically with a view to general culture and to the best mental discipline.

Every student has the opportunity to become thoroughly acquainted with the English language, to learn to speak it and to write it correctly and forcibly. Besides the course of parallel reading given below, an extensive course of general reading is published in the Library for the benefit of all. It is carefully selected and graded, and affords much variety in style and matter.

In the foreign languages the first and constant aim is a correct pronunciation and excellence in translation and composition; but the syntactical and etymological relations existing between these languages and the English are emphasized, and they are thus constantly contributing to the student's knowledge of English and to his power of expression. Besides the above instruction there are, in each foreign language, additional recitations devoted wholly to conversation and sight reading.

The following are the courses for 1894:

I. *Rhetoric and English, Prose Style (Freshman).*

Raub's Rhetoric (two terms) selections from Ruskin, Irving and Hawthorne critically studied (third term); ten essays (chiefly narrative and

descriptive) criticised and corrected by the instructor and copied by the student; thorough drill in English metres. For reference: Bain, Blair, Clark, Hart, Hill, Genung, Kames. *Three times a week.*

*Parallel Reading:* Bulwer—Lytton's Harold; Scott's Talisman; Thackeray's Virginians; Bunyan's Pilgrim's Progress; Moore's Fire-worshippers and Paradise and the Peri; Pope's Essay on Criticism; Scott's Lady of the Lake and Marmion.

## II. *English History (Sophomore).*

By referring to the Department of History and Pedagogics it will be seen that the history of England is taught in this class with special reference to the study of English Literature.

*Parallel Reading:* Gardner's, Goodrich's, or Thalheimer's History of England; Muhlbach's Henry VIII and His Court; Goldsmith's Vicar Wakefield; Dickens' Tale of Two Cities; Shakespeare's Merchant of Venice, Romeo and Juliet, and Hamlet; Tennyson's Idylls (4); Milton's L'Allegro, Il Penseroso, and Comus; Dryden's Alexander's Feast and Saint Cecilia's Day.

## III. *English and American Literature (Junior).*

(a.) History of English and American Literature from earliest period to present day; Shaw's New History of English and American Literature; Shaw's Specimens. For reference: Taine, Morley, Welsh, Arnold, Minto and others. *Twice a week.* This class is required for all students of Junior English.

(b.) English and American masterpieces read and critically studied; historical and critical essays. Kitchin's Spenser; Hale's Longer English Poems and critical editions of other authors. For reference: Brooke, Hallam, Lowell, Masson, Taine, Ward and others. *Twice a week.*

(c.) Chaucer and Shakespeare read and critically studied. Morris's Chaucer; Rolfe's Plays of Shakespeare, and other annotated editions; critical and historical essays. For reference: Bucknell, Coleridge, Dowden, Gervinus, Hazlitt, Hudson, Ulrici and others. *Once a week.*

*Parallel Reading:* Hawthorne's Marble Faun; George Elliott's Romola; Thackeray's Vanity Fair; Dickens' David Copperfield; Pope's Essay

on Man; Goldsmith's Traveller, and She Stoops to Conquer; Byron's Prisoner of Chillon, Mazeppa, and Childe Harold.

#### IV. *Early English and Philology (Senior).*

- (a.) Anglo-Saxon and Middle English; Anglo-Saxon Grammar and readings from the Gospels and Chronicles; selections from Alfred, Ælfrie, Caedmon and other writers. Cook's Siever's Grammar of Old English; Bright's Reader; Morris's Selection from Middle English, Part I; Long's Early English Literature. For reference: Bosworth's Anglo-Saxon Dictionary; Mayhew and Skeat's Dictionary of Middle English; Ten Brink's Old English Literature; March's Grammar (Syntax). *Three times a week.*

- (b.) English Philology. Lounsbury's History of the English Language with references and lectures. For reference: Skeat's Etymological Dictionary; Mayhew's Synopsis of Old English Phonology; Sweet's Handbook of Phonetics; Earle, Whitney, Max Muller, and Marsh. *Once a week.*

*Parallel Reading:* Milton's Paradise Lost; Tasso's Jerusalem Delivered; Pope's Homer; Conington's Virgil; Hall's or Garnett's Beowulf; Bayard Taylor's Faust; Macaulay's Essays (10).

#### V. *Advanced Anglo-Saxon and English Philology (Graduate).*

Cook's Siever's Grammar; March's Grammar; Critical Study of Alfred's Orosius, of Elene, of Beowulf, of Exodus and Daniel, and of Judith; Ten Brink's O. E. Literature; English Philology. For reference, same as III, with Kluge's Etymological Dictionary and Balg's Glossary of Gothic. *At the convenience of the professor.*

#### VI. *Gothic and Germanic Philology (Graduate).*

Balg's Translation of Braune's Gotische Grammatik; Ulfilas (Heyne or Balg); Douse's Introduction to the Study of Gothic. For reference: Wright's Primer of Gothic; Balg's Glossary; Kluge's Etymological Dictionary; Skeat's Etymological Dictionary; Paul and Braune's Grun-driss. *At the professor's convenience.*

VII. *Modern English Literature (Graduate).*

Critical study of the life and works of Scott, Byron, Burke, Carlyle, Thackeray, and Tennyson. *At the professor's convenience.*

VIII. *American Literature (Graduate).*

Critical study of the life and works of Irving, Poe, Longfellow, Emerson, Hawthorne, and Sidney Lanier. *At the professor's convenience.*

IX. *Modern German, Elementary (Junior).*

The Joynes-Meissner Grammar with composition; Brandt's Reader, containing selections from the simple prose of Grimm, Niebuhr, and late authors, and from the lyrics of Goethe, Schiller, Heine, Uhland and other poets; five lyric gems memorized. *Four times a week.* Conversation and sight reading may be given once a week.

X. *Classic German (Senior).*

The critical study of German classics; Schiller's Wallenstein; Lessing's Minna Von Barnhelm; Goethe's Werther and Wilhelm Meister (Hart). Grammar and composition continued; original composition; Conant's German Literature with references to Scherer's Literature and to other larger works. For reference: Whitney's and Brandt's Grammars; Behaghel's Historical Grammar; Jagemann's Syntax; Heath's Dictionary. *Four times a week.*

XI. *German at Sight and Conversation (Senior).*

Stern's Studien und Plaudereien; Deutsche Geschichte, Storm's Immensee; Einer Muss Heirathen; Eigensinn. *Twice a week.*

XII. *Graduate Courses in German.*

One of the following courses of one year each may be taken at the professor's convenience: (1) Life and Works of Goethe, (2) of Schiller, (3) of Lessing, (4) Old and Middle High German, (5) Gothic and Germanic Philology.

XIII. *Modern French, Elementary (Freshman and Sophomore).*

Edgren's Grammar with composition; Whitney's Reader, containing simple prose tales and extended selections from Daudet, Dumas, Sou-

vestre, Michelet, Lamartine, and other nineteenth century authors, and a few lyrics from Victor Hugo, Beranger, Gautier, and other poets. *Four times a week* Conversation and sight reading may be given once a week.

XIV. *Classic French (Sophomore).*

The critical study of French classics; Corneille's Cinna; Racine's Esther; Moliere's Les Precieuses Ridicules and Le Medecin Malgre Lui; Victor Hugo's Hernani; grammar and composition continued; original composition; Duval's French Literature. For reference: Whitney's Grammar; Harrison's French Syntax; Brachet's Historical Grammar; Saintsbury's History of French Literature; Heath's French Dictionary or the Classic French Dictionary. *Four times a week.*

XV. *French at Sight and Conversation (Sophomore).*

Worman's Second Book; Fleury's Histoire de France; Duval's Litterature Francaise.

XVI. *Graduate Courses in French.*

One of the following courses of one year each may be taken at the professor's convenience: (1) Life and Works of Moliere, (2) of Corneille and Racine, (3) of Voltaire, (4) of Victor Hugo, (5) Old French.

XVII. *Modern Spanish (Elementary).*

Edgren's Spanish Grammar with composition; Worman's First Spanish Book; Knapp's Spanish Readings, containing extracts from Fernan Caballero, Selgas, Lafuente, Valera, and other authors. *Four times a week.* Conversation and sight reading may be given once a week. Ordinarily this class will not be formed for less than five students.

XVIII. *Classic Spanish.*

The critical study of Spanish classics; Selections from Don Quixote; Lope's La Estrella de Sevilla; Calderon's El Principe Constante; Clark's Spanish Literature; grammar and composition continued; original composition. For reference: Knapp's Grammar; Becker's Spanish Idioms; Ticknor's History of Spanish Literature; Sismondi's Literature; Velasquez's Dictionary. *Four times a week.*

XIX. *Spanish at Sight and Conversation (Sophomore).*

Worman's Second Book; Colmena Espanola; Caballero's La Familia de Alvareda; Knapp's Readings. *Twice a week*

XX. *Italian.*

Grandgent's Grammar with composition; Foresti's Reader; Sonzogno's Letteratura Italiana; Nota's La Fiera; Ongaro's Rosa dell' Alpi; Tasso's Gerusalemme Liberata. For reference: Cuore's Grammar; Sismondi's Literature; Dictionary, Millhouse or Barette. *At the professor's convenience.*

## ANCIENT LANGUAGES.

C. H. LEVERETT, Professor.

The subjects taught in this department are the Latin Language and Literature and the History of Rome, the Greek Language and Literature and the History of Greece. Authors are read in the order of their difficulty, and neatly written translations are required at stated intervals. The grammar and idioms of these languages are carefully studied and compared with those of English and other languages.

Marked attention is paid to the rendering of English into Latin and Greek. In the lower classes the best manuals for Latin and Greek composition are used; for the higher classes carefully graded exercises are prepared by the professor.

Due prominence is given to the study of Latin and Greek metres and to sight reading. The grammars are made the basis of this instruction, but fuller explanation is given in lectures.

Gildersleeve's Grammar with the Roman method of pronunciation is used throughout the course in Latin, and Goodwin's Grammar in Greek.

I. *Cicero and Virgil (Freshman).*

Seventy pages of Cicero's Orations (A. and G.); two books of Virgil's *Æneid*; selections from Smith's Smaller History of Rome; Jones's Latin Prose Composition (twenty lessons). *Four times a week.*

II. *Virgil, Horace, and Livy (Sophomore).*

Two books of the *Æneid* and selections from the *Eclogues*; *Odes* of Horace (McLean); fifty pages of Livy (Lincoln); Jones's Latin Prose Composition completed. *Four times a week.*

III. *Livy, Horace, Tacitus (Junior).*

Sixty pages of Livy; 1500 lines *Satires* and *Epistles* of Horace; 100 pages of Tacitus; Allen's Latin Composition; sight reading. *Four times a week.*

IV. *Cicero, Juvenal, Roman Literature (Senior).*

The moral works of Cicero, Leverett's or MacLean's Juvenal; Bender's Roman Literature; original exercises; sight reading. *Four times a week.*

NOTE.—Other authors may occasionally be substituted for those above when a change seems beneficial: e. g., Sallust, Ovid, Catullus, Tibullus, Propertius, Pliny, Plautus, Terentius.

BOOKS OF REFERENCE.—Harper's Latin-English Lexicon, White's English-Latin Lexicon, Classical Dictionary, Classical Atlas and Zumpt's, Madvig's, and Roby's Latin Grammars.

V. *Graduate Courses in Latin.*

One or two of the following courses of one year each are offered to graduate students for 1894: (1) The complete works and the life of Virgil and Lucretius, (2) of Sallust and Tacitus, (3) of Livy, (4) of Catullus, Tibullus, Propertius and Ovid, (5) of Cicero, (6) of Terence, Plautus and early authors, (7) of Seneca and Quintilian, (8) of Suetonius and Pliny the Younger. With each of these courses there is collateral work in history, archæology, etc.

VI. *Elementary Greek (Freshman).*

Goodwin's Grammar, Frost's Gr. Primer. Six chapters of Xenophon's *Anabasis* (Kelsey). *Four times a week.*

VII. *Xenophon and Lysias (Sophomore).*

Grammar continued; three books of Xenophon's *Anabasis*; three *Orations* of Lysias; Jones's Prose Composition. *Four times a week.*

VIII. *Herodotus, Homer, and Demosthenes (Junior).*

Forty pages of Herodotus (Mather); three books of Homer's Iliad; forty pages of Demosthenes; selections from Plato; Jones's Prose Composition completed; sight reading. *Four times a week.*

IX. *Thucydides, Euripides, and Sophocles (Senior).*

One book of Thucydides; two plays of Euripides; two plays of Sophocles; Greek Literature; original composition; sight reading. *Four times a week.*

NOTE.—Other authors may be substituted for those given.

BOOKS OF REFERENCE.—Liddell & Scott's Greek-English Lexicon (7th Oxford Edition), Yonge's English-Greek Lexicon, Classical Dictionary, Classical Atlas, Goodwin's Moods and Tenses, Hadley's, and Curtius's Grammars.

X. *Graduate Courses in Greek.*

One or two of the following courses of one year each are offered to graduate students for 1894: (1) The life and complete works of (1) Sophocles and Æschylus, (2) of Euripides, (3) of Aristophanes, (4) of Homer, (5) of Herodotus and Thucydides, (6) of Demosthenes, (7) of Plato (one-half of his works), (8) of Aristotle (one-half of his works). With each of these courses there is collateral work in history, archæology, etc.

## HISTORY AND PEDAGOGICS.

J. F. HOWELL, Professor.

## HISTORY.

The leading schools of the country are recognizing more and more distinctly the importance of history as a factor not only in a liberal education, but in all courses of study designed to fit the young for right and successful living, especially in a great republic such as ours, where every man is directly interested in good government. It has well been said that "when we reflect that what men think of the world depends on what they know of it, it is not surprising that the wider altruistic and ethical interests, which it is the special function of history to develop, rarely become strong enough to control narrower and more isolated and selfish aims in life." It is further recognized that if students are left to themselves to learn history by simply reading it when convenient, little is to be expected. Only by careful study with a competent instructor can the best practical results be obtained.

Instruction is given by lectures and text-books to Freshmen and Sophomores, but mainly by lectures and topical study in the advanced work, independent thought and investigation being encouraged throughout. The Library is fairly well supplied with standard historical works, and additions are being constantly made. Geography, including map drawing, receives due attention, it being held that "historical instruction, without the constant accompaniment of geography, has no solid foundation."

Chronology is made prominent for the purpose of comparison and reasoning, and the preparation of synchronistic charts is required.

I. *Constitutional History (Freshman or Sophomore).*

Government and its origin. Development of the English Constitution. Growth of the "American Idea" among the colonies. Analysis of our National Constitution. Progress of the American Republic. Political parties. Government and Administration in the United States, National, State, and Municipal. Constitution of Arkansas. Parliamentary Law. *Twice a week.*

II. *General History (Sophomore).*

Races of mankind. The eastern nations. Greece. Rome. The Dark Ages, A. D. 476—1006. The Middle Ages, A. D. 1096—1492. Modern history to the present time. *Three times a week.*

III. *English History (Sophomore).*

With special reference to the development of the English language and literature. Legendary period. Formative period, people, language, and literature. Initiative period. Retrogressive period. First creative period. Philosophic period. *Once a week.*

IV. *Ancient History (Junior).*

In the light of recent discoveries and investigations. The Aryans. Eastern monarchies. Greeks and Romans. *Twice a week.*

V. *European History (Senior).*

From the fall of Rome to the present time. Connection between ancient and modern history. Rise of the new nationalities. Influences leading to the Renaissance. The struggle between Christianity and Mohammedanism. The Reformation. Growth of religious and political liberty. *Twice a week.*

VI. *American History (Senior).*

Ancient America. Pre-Columbian voyages. Development of the United States, social, political and industrial. Growth and influence of the nation. Canada, Mexico, and the South American States. *Twice a week.*

PEDAGOGICS.

I. *Pedagogy (Freshman).*

Elements of Psychology. Principles of teaching. General methods. Methods of teaching special branches. Moral training. *Twice a week.*

II. *School Management (Sophomore).*

Instrumentalities. Organization. Courses of study. Classification. Discipline. *Three times a week the first term and continuing into the second term.*

III. *History of Education (Sophomore).*

The oriental nations. Ancient classical nations. Education during the Middle Ages. Modern theories and systems. Kindergarten and manual training schools. *Twice a week second and third terms*

IV. *School Law (Sophomore).*

Decisions of State Supreme Courts on questions relating to the rights and duties of school officers, parents, and children. The school laws of Arkansas. *Once a week third term*

## ELOCUTION.

JESSIE L. CRAVENS, Instructor.

The object of this department is a harmonious development of both mind and body along those lines of culture that lead to power and refinement of speech and action.

Art predetermines her effects. To know what and how to do precedes the doing. A complete course of technical drill lays the foundation for advanced work in expression. An artistic presentation can come only through a perfected technique, and that is attained only by constant practice in voice exercises, articulation, and action. The true state of the soul may then be expressed through the trained body; vital, through voice; mental, through articulatory speech; emotive, through action.

The course of instruction comprises a thorough training in the essentials of expression.

I. *Physical Training.*

The course includes thorough drill in:

1. Light Gymnastics,  
To promote health,  
To give vigor and tone.
2. Aesthetic Gymnastics,  
(In accordance with the laws of Delsarte)  
For the attainment of grace, precision, and  
harmony in action.

## II. *Voice Culture.*

1. Respiration.  
To breathe naturally. Economy of breath. Drill in deep, effusive, expulsive and explosive forms, as a basis for voice work.
2. Voice.  
Exercises for the production and cultivation of open, pleasing, and musical tones. To avoid shrill and loud tones.
3. Articulation.  
To acquire a correct use of the articulatory organs. Exercises upon elementary sounds, separately and in combination. Syllabication, accent, and pronunciation. Defects of speech.

## III. *Expression.*

Modulation, inflection, emphasis, pitch, quantity, and movement. Qualities. Application of tone effects. Light and shade in tone. Transitions. Pause effects. Facial expression. Action and repose. Naturalness. Clearness.

To analyze the sentence for the thought and feeling contained therein, and to produce it in correct and artistic form.

### TEXT-BOOKS.

The books in use and for reference are Southwick's Elocution and Action, Stebbins' System of Expression, Adams' Gesture and Pantomimic Action, Werner's Readings and Recitations, etc.

Instruction is given chiefly by lecture, no special text being strictly adhered to, but always supplemented by the *voice of the teacher*.

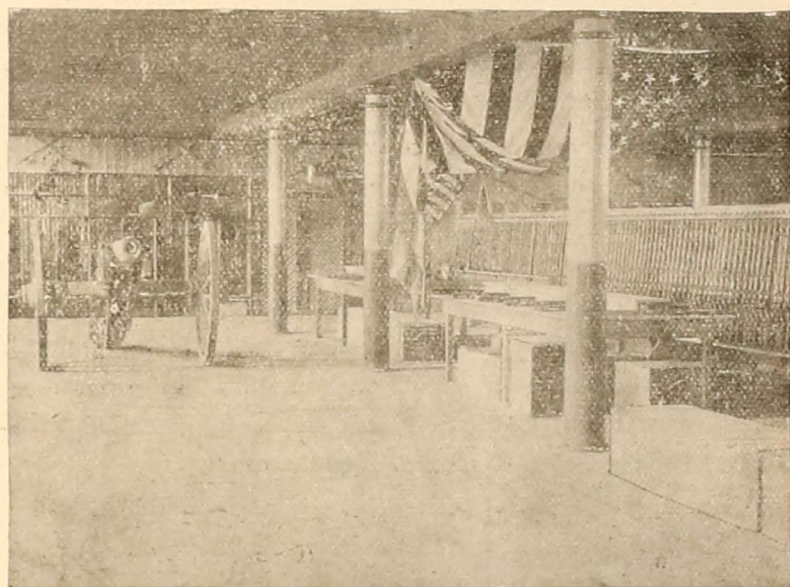
This department is open to all students in the Collegiate and Sub-Freshman classes. *Twice a week.*

## MILITARY DEPARTMENT.

ROBT. W. DOWDY (1st Lieut., 17th U. S. Infantry),  
*Professor of Military Science and Tactics.*

This department is in charge of the United States Army officer detailed by the War Department for duty at the University.

All male students of the University over 15 years of age are required to drill, because the act of Congress appropriating lands to establish the University provides that "Military Science



ARMORY.

and Tactics" shall be taught in addition to the usual course of study.

The system of drill used closely follows that in the United States Army. It contains a course of gymnastic exercises for the development and improvement of the arms, chest, legs, hands and feet, which is unexcelled.

Besides being the perfection of physical training, the drill has many advantages mentally. The necessity of being alert, listening for each word of command, and acting promptly on it quickens the wit and cultivates the habit of fixing the attention and concentrating the thoughts. Thus the student is improved mentally and physically by every drill.

One hour per week is devoted to theoretical instruction of each collegiate class in the art and science of war, and three hours per week to practical instruction of all cadets in the school of the soldier, of the company, and of the battalion, including such ceremonies as guard mounting, dress parade, etc.

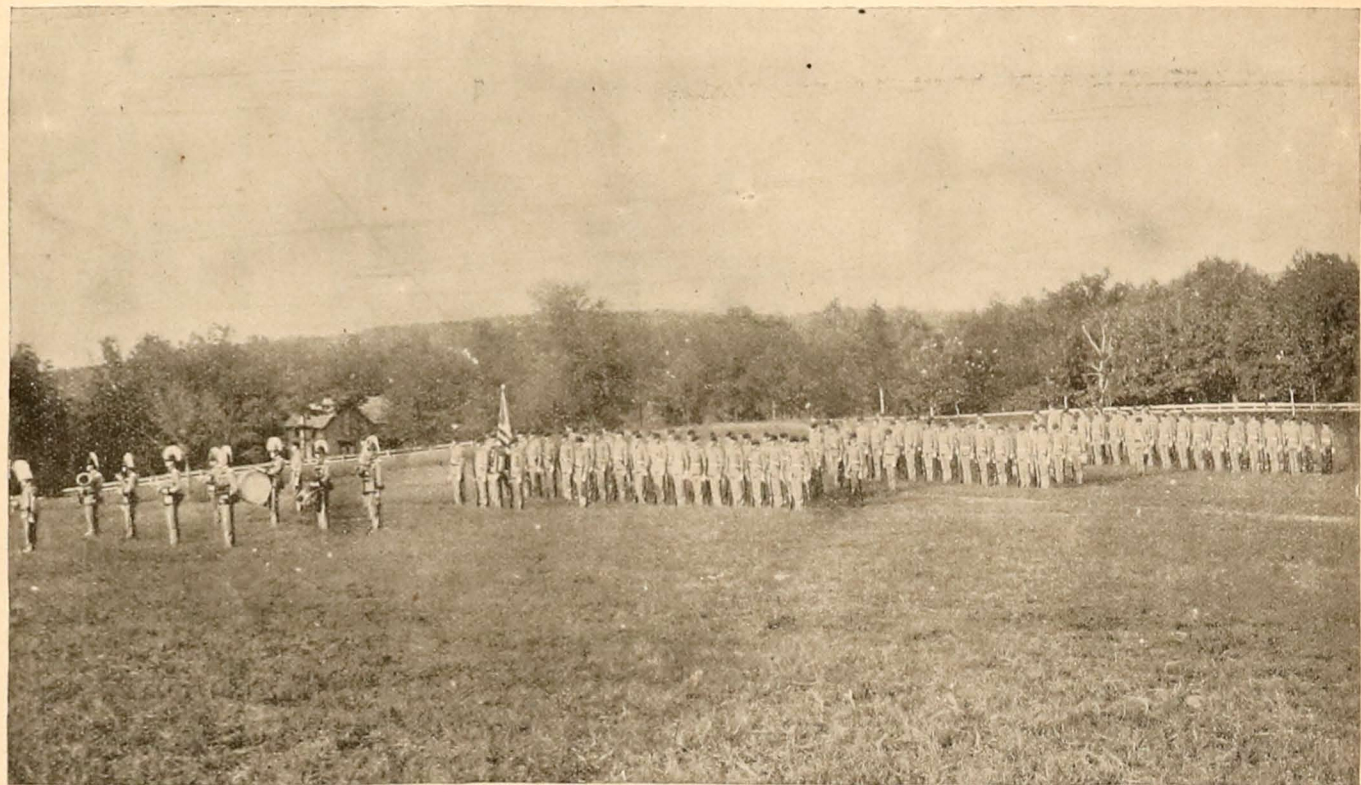
The cadets are organized into companies, and the companies into a battalion, which is annually mustered into the service of the State, and forms the 1st Battalion of the State Guard.

Though every male student over 15 years of age is required to drill and to be a member of one of the cadet companies, no student will be mustered into the service of the State if his parent or guardian objects.

The officers and non-commissioned officers are selected from the collegiate students for proficiency in drill and military studies and general good conduct. An office in the battalion is one of merit and distinction; *any* unbecoming conduct will subject the appointee to reduction to the ranks.

A competitive drill is held each year; the winning company carries the colors for the ensuing year, and a gold medal is awarded to the best drilled cadet.

In connection with the battalion there is a military band, which is composed of cadets not to exceed twenty, who can perform on a band instrument, or who show an aptitude and desire to learn. The band receives the best instruction attainable, practices three times a week, and performs at all military ceremonies. The instruments are furnished by the government and are of the best make and most improved pattern.



BATTALION.

A neat uniform of gray cloth, with brass buttons and black trimmings, is required to be worn at all drills. The suit complete costs from \$14 to \$18, and with ordinary care will last a year, being cheaper in the end than clothing ordinarily worn by students. Parents will save money by postponing the purchase of uniforms for their sons until they arrive in Fayetteville.

## COURSE IN MILITARY SCIENCE AND TACTICS.

### FRESHMAN CLASS.

Drill Regulations—I Part.

Guard Duty.

### SOPHOMORE CLASS.

Drill Regulations—II Part.

Grand Guards, Out Posts, and Picket Duty.

### JUNIOR CLASS.

Field Fortifications and Entrenchments.

Military Law.

### SENIOR CLASS.

Art and Science of War.

Military Law.

There will annually be delivered a course of lectures on Organization, Mobilization, Transportation and Supply, Camouflage, Sanitation, and the National Guard.

### IMPORTANT.

The three students of the Senior Class having the highest grade of merit in this department will be reported to the Secretary of War, and their names recorded in the Adjutant General's office and published in the Register of Officers of the United States Army for that year. The President of the United States in appointing officers of the army gives preference to cadets so reported.

## OFFICERS FOR 1893.

## FIELD, STAFF, AND BAND.

Commandant.....	Robt. W. Dowdy (1st Lieut., 17th U. S. Infantry)
Major....	W. E. Goldsborough, Adjunct Professor of Civil Engineering
Adjutant.....	John D. Nash
Quartermaster.....	J. W. Hicks
Sergeant Major.....	F. P. Evins
Quartermaster Sergeant.....	E. L. Spencer
Chief Musician.....	Frank Barr
Drum Major.....	R. H. Williams

## COMPANY "A."

Captain.....	S. L. Morley
First Lieutenant.....	J. E. Beavers
Second Lieutenant.....	J. L. Moore
First Sergeant.....	J. P. Crozier
Second Sergeant.....	A. M. Brixey
Third Sergeant.....	A. J. McDaniel
Fourth Sergeant.....	E. K. Braley
Corporal.....	A. S. Haygood
Corporal.....	J. D. Ferguson
Corporal.....	Clyde Head

## COMPANY "B" (Color Company).

Captain.....	Chester Russell
First Lieutenant.....	C. Duncan
Second Lieutenant.....	E. Mobberly
First Sergeant.....	W. A. Ross
Second Sergeant.....	H. L. Hunter
Third Sergeant.....	C. D. Head
Fourth Sergeant.....	N. G. Turner
Corporal.....	G. M. Beattie
Corporal.....	M. T. Clegg
Corporal.....	B. E. Turner

## INSTRUMENTAL MUSIC.

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J. B. MARCHESELLI, Instructor in Instrumental Music.

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### PIANO-FORTE COURSE.

#### FIRST GRADE.

Elementary exercises; Duets and studies from Lebert & Stark's Piano-Forte School, Part I. Loeschhorn Op. 38 and 56, and Koehler Op. 50.

#### SECOND GRADE.

Lebert & Stark's Piano-Forte School, Part II. Clementi's Sonatinas,. Heller's Studies, Op. 47, Loeschhorn Op. 66, Bertini Op. 29 and 32, and Czerny's School of Velocity.

#### THIRD GRADE.

Lebert & Stark's Piano-Forte School, Part III. Loeschhorn Op. 67, Kuhlau's Sonatinas, Bach's Inventions and Czerny Op. 740.

#### FOURTH GRADE.

Heller's Art of Phrasing, Moscheles Op. 70 and 73, Kullak's Octave Studies, Clementi's Gradus ad Parnassum and Haydn's Sonatas.

#### FIFTH GRADE.

Cramer's Studies, Bach's Preludes and Fugues, Koehler Op. 120, Chopin Op. 25, and Beethoven's Sonatas.

Selected sections of Plaidy's *Technics* and Mason's *Touch and Technics* used all through the course.

### VIOLIN.

#### FIRST GRADE.

Henning's Practical School, Parts I and II; Kayser, Op. 20, Book I, and Blumenstengel's *Scales and Exercises of Velocity*, Book I.

## SECOND GRADE.

David's Method, Part II; Kayser, Op. 20, Book II; Blumenstengel's Op. 33, and Scales and Exercises of Velocity, Book II.

## THIRD GRADE.

Kreutzer's Forty Etudes and Fiorillo's Thirty-six Etudes. Solos and duets, adapted to the student, used all through the course.

## TERMS:

Twelve weeks—two lessons per week.

Piano-forte and Organ.....	\$12 00
Violin and other stringed instruments.....	12 00
Cornet and other brass instruments.....	12 00
Clarinet and flute.....	12 00
Thorough Bass and Harmony.....	5 00
Use of Piano one hour every day.....	2 35

Tuition payable in advance.

No deduction will be made on account of absence from recitations except in case of prolonged sickness.

## VOCAL MUSIC.

MRS. S. E. MEEK.

True cultivation of the voice consists in the development of pure tone, and its easy, natural use and control in singing.

Attention is given to respiration as an art applicable to singing; position of mouth and tongue, and control of the face in singing; emission of voice on vowels; exercises for uniting the registers; practice on sustained tones in the entire range of the voice; exercises in agility and velocity; exercises in articulation of consonants and vowels; study of delivery and expression; the formation of good style, etc.

## COURSE OF STUDY.

Rœder's Fundamental Vocal Exercises, Concone, Nava, Abt, Sieber, Panseron, Panofka, and other technical work; songs of the English, Italian, French, and German schools; church music; study of the opera and oratorio. The course may be completed in three or four years or longer time, according to the ability and energy of the student.

## TERMS:

Twelve weeks in vocal culture, two hours per week..... \$12 00

Tuition payable in advance.

## THE SCHOOL OF AGRICULTURE.

### FACULTY.

- E. H. MURFEE, President.  
 A. E. MENKE, Chemistry, Physics, and Agriculture.  
 W. B. BENTLEY, Chemistry and Physics.  
 O. C. GRAY and G. W. DROKE, Mathematics.  
 JEROME MCNEIL and S. E. MEEK, Biology.  
 R. H. WILLIS and E. H. CARNALL, English.  
 R. W. DOWDY, Military, Science and Tactics.  
 R. R. DINWIDDIE, Veterinarian of Ag'l Exper't Station.  
 W. F. BATES, Foreman of Farm and Inst'r in Dairying.  
 J. M. MOORE, Assistant Foreman of the Farm.

### REQUIREMENTS FOR ADMISSION.

(See Pages 35-40.)

### COURSE IN AGRICULTURE.

The School of Agriculture is designed and organized to give both theoretical and practical instruction in the various branches of agriculture. Special preparation is needed no less for the pursuit of agriculture than for law, medicine, or divinity. The method of instruction now employed is class-room work, accompanied by practical demonstrations in the field, dairy, and laboratories. The equipment for practical work will compare favorably with those of other agricultural colleges; the machinery is new and of the most improved pattern, all selected with a view to its economic value. The dairy has been recently fitted up with Laval's separator and other necessary implements. We have a large vineyard and orchard for practical horticultural work; a herd of pure stock of different breeds, so that the students can be instructed in the work that occurs on either a stock, dairy, fruit, or cropped farm. A feature of considerable interest has recently been added by the Board of Trustees—prize crop and dairy competitions—and this has been a means of exciting the interest of students to a high degree.

The following is a detailed description of the instruction given in the course. The purely agricultural classes in the course are agriculture, horticulture, stock-breeding, stock feeding, agricultural chemistry, veterinary anatomy, veterinary science. The various closely related branches are also provided for, as may be seen in the following schedule.

### Farmers' Course for Certificate in Agriculture.

#### FRESHMAN CLASS.

Biology, 4; Physics, 5; English, 3; Mathematics, 5.

#### SOPHOMORE CLASS.

FIRST TERM.	SECOND TERM.	THIRD TERM.
Veterinary Anatomy, 5.	Veterinary Science, 3.	Veterinary Science, 2.
	Agriculture, 2.	Agriculture, 1.
Horticulture, 4.	Dairy Husbandry, 4.	Dairy Husbandry, 4.
Stock Breeding, 3.	Stock Breeding, 3.	Stock Breeding, 3.
General Chemistry, 3.	General Chemistry, 3.	General Chemistry, 5.

Students who have completed this course may take the Junior and Senior years in the College of Science and graduate with the Degree of Bachelor of Science.

## COLLEGE OF MECHANIC ARTS AND ENGINEERING.

## FACULTY.

E. H. MURFEE, President, Political Economy.  
C. V. KERR, Mechanical Engineering, Supt. Mechanic Arts.  
A. E. MENKE and W. B. BENTLEY, Chemistry and Physics.  
O. C. GRAY and G. W. DROKE, Mathematics.  
JEROME MCNEIL and S. E. MEEK, Biology and Geology.  
R. H. WILLIS and E. H. CARNALL, English.  
J. F. HOWELL, History and Pedagogics.  
ROBT. W. DOWDY, Military Science and Tactics.  
W. E. GOLDSBOROUGH, Electrical Engineering.  
J. J. KNOCH, Civil Engineering.  
MACK MARTIN, Machine Shops, Mechanics  
F. P. NICHOLAS, Wood Shops.  
S. M. TAFF, Foundry.  
W. D. ASH, Forge Shops.  
C. S. DUGGANS, Engineer.  
JESSIE L. CRAVENS, Elocution. ✓

## REQUIREMENTS FOR ADMISSION.

(See Pages 35-40).

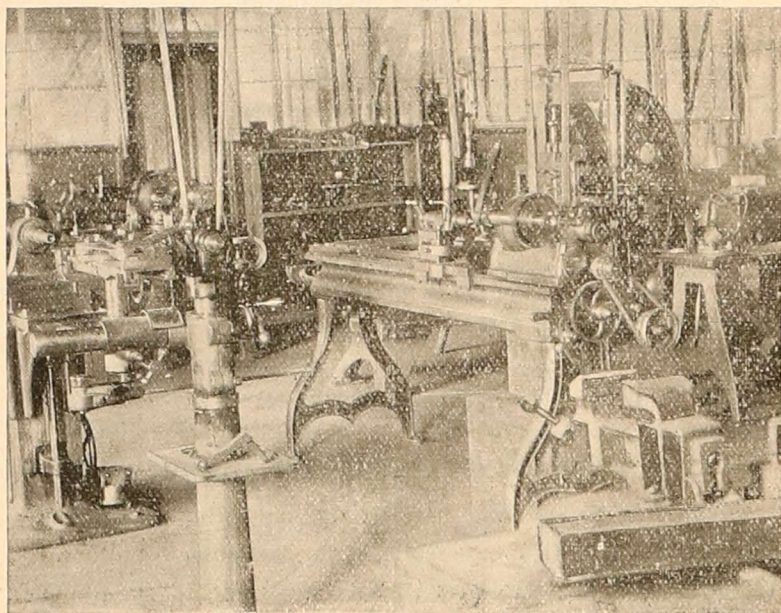
## GENERAL DESCRIPTION OF COURSES IN ENGINEERING.

*Mechanical Engineering* may be defined as being the application of mathematics to science, with particular reference to the design and fabrication of all forms of machinery, and the use of steam and water as motive powers. Since engineering is the combined science and art of utilizing the forces and materials of nature, and since this utilization is accomplished in nearly all cases by machines, or by processes working through machines, it is evident that mechanical engineering is the basis of all art and industry.

*Civil Engineering* embraces the location and construction of railroads, canals, waterworks, sewerage systems, foundations on land and in water, tunnels and superstructures; the surveys, improvements and defenses of coasts, harbors, rivers, and lakes; the application of mechanics, descriptive geometry, and graphics

to the design and construction of arch bridges, roofs, truss, and suspension bridges; irrigation and drainage of lands; and the preparation of forms of specifications and contracts.

*Electrical Engineering* deals with the design and construction of dynamos and motors; the distribution of electricity for use in illumination, or for driving machinery; the construction and operation of electric railways; the erection and manage-



MACHINE SHOP.

ment of telegraph and telephone lines; and with electrolysis and welding of metals.

The courses of engineering offered are designed to supply not only mental training but the means for insuring a livelihood in the professions to which they lead. It is believed that the most efficient way to teach theory is to unfold it to the student only so fast as he can apply it to the practical work of his course. He thus makes it his own, and theory becomes practice.

**Civil, Mechanical, and Electrical Engineering.****FRESHMAN CLASS.**

*First Term*—Algebra, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Physical Laboratory, 1; Drawing, 2; Shop Work, 4.

*Second Term*—Geometry, 5; English, 3; Physics, 4; Physical Laboratory, 1; Machine Shop Practice, 1; Drawing, 2; Shop Work, 4.

*Third Term*—Trigonometry, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Physical Laboratory, 1; Drawing, 2; Shop Work, 4.

**SOPHOMORE CLASS.**

*First Term*—Trigonometry, 3; Analytical Geometry, 2; Descriptive Geometry, 1; General Chemistry, 3; English and American Literature, 2; Surveying, 2; Chemical Laboratory, 2; Physical Laboratory, 1; Field Practice, 2; Drawing, 2.

*Second Term*—Analytical Geometry, 5; Descriptive Geometry, 1; General Chemistry, 3; English and American Literature, 2; Surveying, 2; Chemical Laboratory, 2; Physical Laboratory, 1; Field Practice, 2; Drawing, 2.

*Third Term*—Differential Calculus, 5; Descriptive Geometry, 1; General Chemistry, 5; English and American Literature, 2; Chemical Laboratory, 2; Physical Laboratory, 1; Field Practice, 2; Drawing, 2.

**Civil Engineering Course for Degree of B. C. E.****JUNIOR CLASS.**

*First Term*—Integral Calculus, 3; Steam Engineering, 3; Geology, 3; Political Economy, 2; Railroad Engineering, 2; Highways, 2; Field Practice, 2; Practical Geology, 1; Drawing, 2.

*Second Term*—Integral Calculus, 3; Steam Engineering, 3; Geology, 3; Railroad Engineering, 1; Elementary Mechanics, 3; Political Economy, 2; Field Practice, 2; Drawing, 2; Practical Geology, 1.

*Third Term*—Statics and Dynamics, 5; Railroad Engineering, 4; Masonry Construction, 3; Steam Engineering, 2; Political Economy, 2; Field Practice, 2; Drawing, 2.

**SENIOR CLASS.**

*First Term*—Strength of Materials, 5; Metallurgy of Iron and Steel, 3; Sanitary Engineering, 3; Arches and Dams, 2; Stereotomy and Drawing, 3; Field Practice, 2; Engineering Laboratory, 2.

*Second Term*—Hydraulics, 5; Roofs and Bridges, 4; Waterworks, 5; Field Practice, 2; Drawing, 2; Engineering Laboratory, 2.

*Third Term*—Bridges, 4; Turbines, 2; Engineering Structures, Specifications, 3; Laws of Business, 3; Astronomy, 3; Thesis, 5.

## Mechanical Engineering Course for Degree of B. M. E.

### JUNIOR CLASS.

*First Term*—Integral Calculus, 3; Steam Engineering, 3; Elements of Mechanism, 3; Political Economy, 2; Analytical Chemistry, 5; Chemical Laboratory, 2; Drawing, 2.

*Second Term*—Integral Calculus, 3; Elementary Mechanics, 3; Steam Engineering, 3; Machine Design, 3; Political Economy, 2; Chemical Laboratory, 2; Drawing, 2.

*Third Term*—Statics and Dynamics, 5; Machine Designs, 3; Steam Engineering, 2; Masonry Construction, 3; Political Economy, 2; Chemical Laboratory, 2; Drawing, 2.

### SENIOR CLASS.

*First Term*—Thermodynamics, 3; Strength of Materials, 5; Metallurgy of Iron and Steel, 3; Valve Gears, 2; Experimental Engineering, 2; Engineering Laboratory, 2; Drawing, 2.

*Second Term*—Thermodynamics, 3; Fly Wheels and Reciprocating Parts, 2; Hydraulics, 5; Railway Practice, 3; Experimental Engineering, 2; Engineering Laboratory, 2; Drawing, 2.

*Third Term*—Mechanical Refrigeration, 3; Turbines, 2; Governors, 2; Power plants and Specifications, 2; Laws of Business, 3; Astronomy, 3; Thesis, 5.

## Electrical Engineering Course for Degree of B. E. E.

### JUNIOR CLASS.

*First Term*—Integral Calculus, 3; Analytical Chemistry, 4; Political Economy, 2; Steam Engineering, 3; Dynamo Electric Machinery, 2; Chemical Laboratory, 2; Electrical Laboratory, 2; Drawing, 2.

*Second Term*—Integral Calculus, 3; Elementary Mechanics, 3; Dynamo Electric Machinery, 3; Political Economy, 2; Steam Engineering, 3; Chemical Laboratory, 2; Electrical Laboratory, 2; Drawing, 2.

*Third Term*—Statics and Dynamics, 5; Dynamo Electric Machinery, 2; Steam Engineering, 2; Masonry Construction, 3; Political Economy, 2; Chemical Laboratory, 2; Electrical Laboratory, 2; Drawing, 2.

### SENIOR CLASS.

*First Term*—Strength of Materials, 5; Thermodynamics, 3; Metallurgy of Iron and Steel, 3; Absolute Measurements in Electricity and Magnetism, 2; Storage of Electrical Energy, 2; Electrical Design, 1; Drawing, 2; Electrical Laboratory, 2.

*Second Term*—Hydraulics, 5; Theory of Alternating Currents, 5; Thermodynamics, 3; Electrical Design, 1; Engineering Laboratory, 2; Electrical Laboratory, 2; Drawing, 2.

*Third Term*—Alternating Current Machinery, 3; Electric Railways in Theory and Practice, 3; Specifications, 2; Laws of Business, 3; Astronomy, 3; Thesis, 5.

## COURSE IN MANUAL TRAINING.

The Course in Manual Training, covering four years, is intended to replace the old apprenticeship system, and at the same time give the youth instruction in English, mathematics, science, drawing, the principles of mechanism, and steam engineering. The recent growth of Manual Training Schools, not only here, but in Europe, is phenomenal. The apprenticeship system is now practically obsolete; hence the need of Manual Training Schools. The only opportunity offered to the youth of the State to obtain this instruction is given by the University, whose equipment and work of instruction has been so planned that we are able to offer:

(a.) A course in general shop work, extending over three years, followed by a fourth year's work in one of the shops selected by the student. The design is to enable a young man to acquire considerable skill and a sound basis for the trade he may want to follow.

(b.) A course in general shop work, extending over three years, followed by a fourth year's work in the management of boilers, engines, dynamos and electric light systems. This course is intended to train young men for the practical work of running steam plants or electric light stations.

(c.) A course in general shop work, extending over three years, together with class room work in the history, theory and practice of teaching, followed by a fourth year's work in handling classes in the shops and in laying out series of practical exercises. Shop instructors really qualified for their work are hard to find, and the course is an attempt to provide a means for training young men for such work in our own institution and in other schools where manual training is in practice.

## FRESHMAN CLASS.

*Courses (a) and (b): First Term*—Algebra, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Drawing, 2; Shop Work, 4; Physical Laboratory, 1.

*Second Term*—Solid Geometry, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Drawing, 2; Shop Work, 4; Physical Laboratory, 1.

*Third Term*—Plane Trigonometry, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Physical Laboratory, 1; Drawing, 2; Shop Work, 4.

*Course (c): First Term*—Algebra, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Pedagogy, 2; Physical Laboratory, 1; Drawing, 1; Shop work, 3.

*Second Term*—Solid Geometry, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Pedagogy, 2; Physical Laboratory, 1; Drawing, 1; Shop Work, 3.

*Third Term*—Plane Trigonometry, 5; English, 3; Physics, 4; Machine Shop Practice, 1; Pedagogy, 2; Physical Laboratory, 1; Drawing, 1; Shop Work, 3.

#### SOPHOMORE CLASS.

*Courses (a) and (b): First Term*—General Chemistry, 3; Steam Engines, 3; Elements of Mechanism, 3; Chemical Laboratory, 2; Drawing, 2.

(a.) Shop Work, 4; (b.) Boiler Firing, 4.

*Second Term*—General Chemistry, 3; Steam Engines and Pumps, 3; Elementary Mechanics, 3; Machine Design, 3; Chemical Laboratory, 2; Drawing, 2.

(a.) Shop Work, 4; (b.) Boiler Firing, 4.

*Third Term*—General Chemistry, 3; Masonry Construction, 3; Boiler, 2; Machine Design, 3; Chemical Laboratory, 2; Drawing, 2.

(a.) Shop Work, 2; (b.) Engine Running, 2.

*Course (c): First Term*—General History, 3; Constitutional History, 2; General Chemistry, 3; School Management, 3; Shop Teaching, 5; Chemical Laboratory, 2.

*Second Term*—General History, 3; Constitutional History, 2; General Chemistry, 3; Elementary Mechanics, 3; History of Education, 3; Chemical Laboratory, 2; Shop Teaching, 2.

*Third Term*—General Chemistry, 5; History of Education, 3; General History, 3; Constitutional History, 2; Shop Organization, 2; Shop Teaching, 2; Chemical Laboratory, 2.

NOTE 1.—Students completing one of the courses in Manual Training receive an appropriate certificate.

NOTE 2.—Candidates for admission to the Freshman Class in the College of Mechanic Arts and Engineering will be examined in all the subjects required for admission to the University except Latin. The drawing and shop work will be made up after admission.

NOTE 3.—Every student is required to have the equivalent of fifteen recitations per week, in which two hours of drawing, or shop work, or laboratory work are counted as equal to one recitation. But he will not be allowed to have the equivalent of more than twenty recitations without the consent of the Faculty.

## COLLEGE OF SCIENCE.

## FACULTY.

E. H. MURFEE, President, Psychology.  
JEROME MCNEIL, Biology, Botany.  
A. E. MENKE and W. B. BENTLEY, Chemistry and Physics.  
S. E. MEEK, Geology and Zoology.  
O. C. GRAY and G. W. DROKE, Mathematics.  
R. H. WILLIS and E. H. CARNALL, English and Modern Languages.  
J. F. HOWELL, History and Pedagogics.  
R. W. DOWDY, Military Science and Tactics.  
JESSIE L. CRAVENS, Elocution.

## REQUIREMENTS FOR ADMISSION.

(See Pages 35-40.)

## GENERAL STATEMENT.

The design of the courses of study offered by this College is first to afford students a liberal education with some branch of science substituted for Latin or Greek, and second to make some one subject in science so prominent that the graduate will have an excellent foundation for a profession. By requiring every graduate to spend at least three years on one branch of science, as chemistry or botany, he is obliged to go much beyond the easy introduction, which is all that is required in the old-fashioned B. S. course, so that he has the advantage of the severe mental discipline which a difficult study affords, and when this course is completed, he has the satisfaction of knowing that he is the possessor of special knowledge which can be turned to immediate use, if he sees fit.

## COURSE WITH CHEMISTRY.

The Course in Chemistry is designed to prepare students for actual work in connection with manufactures based on chemical principles. To the credit of chemistry as an industrial science, the tenth United States census shows, in the

United States alone, the existence of 1349 chemical establishments, employing 29,500 workmen and paying annual wages to the amount of \$11,820,728.

The course extends over four years and embraces class room work, consisting of a full course of lectures on general, theoretical, analytical, industrial, and organic chemistry; non-chemical studies, such as English, modern languages, history, mineralogy, mathematics, and physics being introduced with reference to their bearing on chemical work and for their educational value.

The student spends a large part of the four years in the laboratories. In the first year there is physical and biological laboratory practice, in the second year general chemical and physical, in the third and fourth years analytical and industrial.

The following are the details of instruction in this course:

#### FRESHMAN CLASS.

Biology, 2; Physics, 4; English, 3; Mathematics, 5; Laboratory work as required, Physics once, Biology twice weekly; Optional, 3.

#### SOPHOMORE CLASS.

General Chemistry, 3 for two terms, 5 for third term; French or Spanish, 4; Heat, 2; General History, 3; Chemical Philosophy, 4 for one term; Elective, 2 for first two terms. Laboratory Work in Chemistry, 2; in Heat, 1; Optional, 3 for first two terms.

#### JUNIOR CLASS.

Organic Chemistry, 3; Theory of Qualitative Analysis, 5 for one term; Mineralogy 5, second term; Optional 5, third term; Geology, 4; German, 4. Laboratory Work in qualitative Analysis throughout the year four times weekly.

#### SENIOR CLASS.

Metallurgy, 3; Technical Chemistry, 3; German, 5; Optional, 5. Laboratory Work in Quantitative Analysis four afternoons per week throughout the year.

#### ELECTIVE STUDIES.

Any subject in the B. A. or B. S. Courses, if not mentioned already. Analytical Geometry, Calculus, Ethics, Surveying, Applied Electricity and Elements of Mechanism.

## COURSE WITH BOTANY OR ZOOLOGY.

The course which requires either Botany or Zoology for a major study is designed to meet the wishes of those who desire the discipline which a good scientific training can give. It requires four years of Botany or four years of Zoology, including one year in Biology, in both estimates. Anyone who completes the course will be well qualified to do the scientific work required in high-schools and the smaller colleges, or to take a higher course in either of these sciences in any of the larger universities of this country or Europe. The course in Zoology with French in the Sophomore year in the place of Pedagogics is especially designed for those who intend to follow the profession of medicine. Graduates in this course will save two of the four years required in the first-rate medical colleges.

## FRESHMAN CLASS.

Biology, 2; English, 3; Mathematics, 5; Physics, 4; Laboratory Work in Biology, 2; Laboratory Work in Physics, 1; Optional, 3.

## SOPHOMORE CLASS.

Botany, 2; History, 3; Chemistry, 3; Laboratory Work in Botany, 3; Laboratory Work in Chemistry, 2; Pedagogics, 3; or French, 4; Optional, 4.

## JUNIOR CLASS.

Botany, 2; Zoology, 2; Laboratory Work in Botany, 3; Laboratory Work in Zoology, 3; German, 4; Elective, 2; Optional, 4.

## SENIOR CLASS.

Advanced Work in Botany or Zoology, 5; Geology, 3; German, 5; Elective, 2; Optional, 4; Laboratory Field Work in Geology and Botany or Zoology.

## COURSE WITH HORTICULTURE OR ENTOMOLOGY.

This course is intended to train young men or young women for Agricultural Experiment Station work. The establishment of these stations in all the States has created a strong demand for professional entomologists and horticulturists, and the demand has been and will continue for some years to be greater than the supply.

## FRESHMAN CLASS.

Biology, 2; English, 3; Mathematics, 5; Physics, 4; Laboratory Work in Biology, 2; Laboratory Work in Physics, 1; Optional, 3.

## SOPHOMORE CLASS.

Botany, 2; History, 4; Chemistry, 3; Laboratory Work in Botany, 3; in Chemistry, 2; French or German, 4; Optional, 2.

## JUNIOR CLASS.

Horticulture or Zoology, 2; Entomology, 2; Laboratory Work in Horticulture or Zoology, 3; in Entomology, 3; French or German, 4; Elective, 2; Optional, 4.

## SENIOR CLASS.

Advanced Work in Entomology or Horticulture, 5; Geology, 3; Botany, 3; Laboratory Work in Geology, 2; Elective, 3; Optional, 4.

## COURSE WITH GEOLOGY.

## FRESHMAN CLASS.

Biology, 2; Physics, 4; Mathematics, 5; English, 3; Drawing, 1; Biological Laboratory, 2; Physical Laboratory, 1; Optional, 2.

## SOPHOMORE CLASS.

General Geology, 3; Chemistry, 3; Botany, 2; Surveying, 2; Drawing, 1; Laboratory and Field Work in Geology, 2; Surveying Practice, 2; Chemical Laboratory, 2; Botanical Laboratory, 3.

## JUNIOR CLASS.

Historical Geology, 3 (first term); Mineralogy, 5 (second term); Paleontology, 5 (third term); Zoology, 2; German or French, 4; Chemistry, 3; Geological Laboratory, 2; Chemical Laboratory, 2; Zoological Laboratory, 3; Optional, 3.

## SENIOR CLASS.

Special Work in Stratigraphy, Paleontology or Petrography, 5; Metallurgy, 3; German or French, 5; Psychology, 3; Optional, 4.

MEDICAL PREPARATORY COURSE NOT LEADING  
TO A DEGREE.

Students who intend to make medicine a profession are strongly advised to complete one of the scientific courses, selecting such subjects for their electives as will best fit them for their professional studies; but for the benefit of those whose time or means is limited, the following course is offered: If,

on completion of the course, the student decides to graduate, he will be accepted as a full Junior in any of the courses leading to a B. S. Degree.

#### FRESHMAN CLASS.

Botany, 5; Mathematics, 5; French, 4; Zoology, 4 (first term); Comparative Anatomy, 4 (second term); Bacteriology, 4 (third term); Constitutional History, 2.

#### SOPHOMORE CLASS.

Chemistry, 5; History, 4 (first two terms); Embryology, 4 (third term); Physics, 4; Psychology, 3.

## THE COLLEGE OF LIBERAL ARTS.

### FACULTY.

E. H. MURFEE, President, Psychology, Ethics, and Political Economy.  
 R. H. WILLIS, English and Modern Languages.  
 O. C. GRAY and G. W. DROKE, Mathematics, Logic, and Astronomy.  
 E. H. CARNALL, English and Modern Languages.  
 C. H. LEVERETT, Ancient Languages.  
 J. F. HOWELL, History and Pedagogics.  
 A. E. MENKE and W. B. BENTLEY, Chemistry and Physics.  
 JEROME MCNEIL and S. E. MEEK, Biology and Geology.  
 C. V. KERR, Mechanical Engineering.  
 R. W. DOWDY, Military Science and Tactics.  
 J. J. KNOCH, Civil Engineering.  
 W. E. GOLDSBOROUGH, Electrical Engineering.  
 JESSIE L. CRAVENS, Elocution. ✓

### REQUIREMENTS FOR ADMISSION.

(See Pages 35-40).

### Classical Courses for Degree of Bachelor of Arts (B. A.).

Each of these courses is designed to furnish a liberal education, to give superior mental discipline, and to prepare students to enter upon professional studies—law, medicine, journalism, etc. Each contains, besides English, not less than six yearly courses in languages, and at the same time the arrangement of elective studies allows students to give special attention to mathematics, to any branch of science, to history, or to one of the ancient or modern languages. Each class has such practical work as the subject requires, and optional studies in elocution or in other branches are allowed to the limit of twenty hours per week. The courses are merely outlined here. For details concerning the studies mentioned, consult Departments of Instruction, beginning on page 46.

### I. COURSE WITH MATHEMATICS.

#### FRESHMAN CLASS.

Latin, 4; Mathematics, 5; Greek or French, 4; English, 3; Optional, 4.

## SOPHOMORE CLASS.

Latin, 4; Mathematics, 5; General History, 3; Greek or French, 4; Optional, 4.

## JUNIOR CLASS.

Calculus and Descriptive Astronomy, 4; Latin, Greek, or German, 4; English, 2; Political Economy, 2; Logic, 2; Elective, 2; Optional, 4.

## SENIOR CLASS.

Latin, Greek, or German, 4; History, 2; Elective, 10; Optional, 4.

## II. COURSE WITH MODERN LANGUAGES.

## FRESHMAN CLASS.

Latin, 4; French or Spanish, 4; Mathematics, 5; English, 3; Optional, 4.

## SOPHOMORE CLASS.

Latin, 4; French or Spanish, 4; History, 4; Physics, 4; Optional, 4.

## JUNIOR CLASS.

German, 4; English, 5; Logic, 2; Political Economy, 2; Elective, 3; Optional, 4.

## SENIOR CLASS.

Psychology, 3; English, 4; German, 4; Elective, 5; Optional, 4.

NOTE.—Students of energy and ability are advised to take Greek or one of the sciences as an optional study in each class.

## III. COURSE WITH ANCIENT LANGUAGES.

## FRESHMAN CLASS.

Latin, 4; Greek, 4; Mathematics, 5; English, 3; Optional, 4.

## SOPHOMORE CLASS.

Latin, 4; Greek, 4; History, 4; Physics, 4; Optional, 4.

## JUNIOR CLASS.

Latin, 4; Greek, 4; English, 5; Logic, 2; Political Economy, 2; Optional, 3.

## SENIOR CLASS.

Psychology, 3; Latin or Greek, 4; Elective, 9; Optional, 4.

## IV. COURSE WITH HISTORY.

## FRESHMAN CLASS.

Latin, 4; Constitutional History, 2; Mathematics, 5; English, 3; Elective, 2; Optional, 4.

## SOPHOMORE CLASS.

Latin, 4; General History, 3; Chemistry or Physics, 4; Elective, 5; Optional 4.

## JUNIOR CLASS.

Ancient History, 2; Political Economy, 2; English, 2; Logic, 2; Elective, 8; Optional, 4.

## SENIOR CLASS.

European History, 2; American History, 2; Psychology, 3; Elective, 9; Optional, 4.

General Physics, General Chemistry, or General Biology is required for all Seniors who have not passed in one of these branches.

*Elective Studies*—Any subjects mentioned in the B. A. courses above, if not counted already; General Biology, 4; Botany, 4; Zoology, 4; Geology, 5; Heat, 3; General Chemistry, 5; Analytical Chemistry, 5; Mineralogy, 5; Surveying, 4; Elements of Mechanism, 3; Electricity, 5. Except as provided above, or by special act of the Faculty, elective studies, if counted for a degree, must be pursued at least one year each; German for two years.

## GRADUATE COURSES FOR HIGHER DEGREES.

For Graduate Courses, see Departments of English and Modern Languages, and of Ancient Languages. For Higher Degrees, see page 96.

## THE NORMAL SCHOOL.

## FACULTY.

E. H. MURFEE, President.

J. F. HOWELL, History and Pedagogics.

A. E. MENKE and W. B. BENTLEY, Physics and Chemistry.

O. C. GRAY and G. W. DROKE, Mathematics.

JEROME McNEIL and S. E. MEEK, Biology and Geology.

R. H. WILLIS and E. H. CARNALL, English.

C. H. LEVERETT, Latin.

R. W. DOWDY, Military Science and Tactics.

JESSIE L. CRAVENS, Elocution.

## REQUIREMENTS FOR ADMISSION.

(See Pages 35-40).

The design of this school is to train teachers for the schools of the State. Technical instruction is begun in the Freshman, and finished in the Sophomore class, satisfactory completion of the course entitling the student to a certificate of "Licentiate of Instruction."

Section 6166 of the Revised Statutes of the State is as follows: "The State Superintendent of Public Instruction shall have power to grant State certificates, which shall be valid for life, unless revoked, to any person in the State who shall pass a thorough examination in all those branches required for granting county certificates, and also in algebra and geometry, physics, rhetoric, mental philosophy, history, Latin, the Constitution of the United States, and of the State of Arkansas, natural history, and the theory and art of teaching."

It will be observed that the course includes all the branches required for a State certificate in accordance with the law, and in addition, some other subjects with which a teacher should be familiar. After completing the Normal Course, students may take up in the Junior Class the work of any course for which they may be prepared, and compete for the corresponding degree.

Psychology is made the basis of technical instruction, an outline of this subject being given in the Freshman class, and special attention being given to the analysis of the intellectual processes. Students are encouraged and trained to study their own mental phenomena, and to note evidences of similar phenomena in the conduct of others, especially of children. The fundamental principles of teaching as deduced from physical facts are presented, as also general methods of teaching based on these principles. Students are required to give much attention to principles as inculcated, and to methods as illustrated in approved pedagogical books and journals, a good selection of which is free of access in the University Library. At the same time they are taught to avoid a slavish dependence upon the methods of others, and encouraged to devise plans of their own.

The idea is continually made prominent that character building should be the grand aim of the teacher.

Further, the aims are:

First—To unify the work of our educational system by bringing the secondary schools and the University into close sympathy with each other.

Second—To teach pupils how to organize, grade, and discipline the various kinds of schools.

Third—To give them a knowledge of general school law and of the school laws of Arkansas, especially the duties of teachers as officers of the State.

Fourth—To impart to them a valuable summary of the history of education.

Fifth—To aid them in creating for themselves high educational ideas, based on the principles of Christianity

**Normal Course Leading to the Certificate of Licentiate of Instruction (L. I.)**

#### FRESHMAN CLASS.

Latin, 4; Mathematics, 5; English, 3; Biology, 4; Pedagogy, 2; Optional, 2.

## SOPHOMORE CLASS.

Latin, 4; Physics, 4; Constitutional History, 2; General History, 3; School Management, History of Education, and School Law, 3; Optional, 4.

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NOTE TO TEACHERS.—The attention of young teachers is called to the course of study on page 65, where it will be observed that instruction is offered in certain lines of pedagogics for periods of three months, thus giving them opportunity to spend their vacations here on such work as they may be competent to do. From March to June pedagogy, embracing elementary psychology, may be studied with the Freshman class, and school management with the Sophomore class. From June to September pedagogy may be studied with the Freshman, and history of education with the Sophomore class. From September to December pedagogy may be studied with the Freshman, and school law and history of education with the Sophomore class. In addition to this technical work, teachers will find superior advantages here in other branches of learning, should they desire to spend a vacation in fitting themselves for more thorough and higher work. Correspondence relative to the work of this department is cordially invited.

## GRADUATE COURSES AND DEGREES.

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### REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS (M. A.).

Applicants for this degree must have previously taken the Degree of B. A., and in addition must take at the University, for a full scholastic year, not less than sixteen hours of recitations and lectures, as determined by the Faculty, and submit a satisfactory thesis.

### REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (M. S.).

Applicants for this degree must have previously taken the Degree of B. S., and in addition must take at the University, for a full scholastic year, not less than sixteen hours of recitations and lectures, as determined by the Faculty, and submit a satisfactory thesis.

### REQUIREMENTS FOR THE DEGREE OF M. E., C. E. OR E. E.

The Degree of M. E., C. E. or E. E. will be given after three years to those graduates of the Mechanical, Civil, or Electrical Engineering Courses who, by successful practice, prove themselves worthy and submit a satisfactory thesis.

### THE DEGREE OF DOCTOR OF PHILOSOPHY (PH. D.).

1. This degree will be conferred for distinguished attainments, as shown by examination and thesis, in any one of the five following languages: Latin, Greek, German, French and English, together with subordinate attainments in two others of the five; or for distinguished attainments in one principal, and two subordinate, of the following sciences: Chemistry, Physics, Geology, Biology; or for distinguished attainments in Philosophy, or in Pure and Applied Mathematics.

2. This degree shall be open to persons who have received the Degree of B. A. or B. S. at this or other reputable institutions.

3. No applicant shall receive this degree before two full scholastic years from the date of his admission to the course shall have passed. The last year must be passed by the candidate in resident study at the University. Ordinarily it will require three years' study.

4. Applicants for this degree must state in their application what particular line of study they wish to pursue.

5. A thesis of 2000 or more words showing original research shall be required of every applicant, the subject of which shall be announced and passed upon by a committee of the Faculty at least one year before the time set for the final examination, and the thesis itself must be presented to the committee two months before admission to this examination. Twenty-five copies of the approved and printed thesis shall be placed in the University Library.

6. All applicants for this degree must, by the end of the first year of the course, be sufficiently conversant with French and German to read with ease any scientific work written in these languages.

7. The fee for examination of applicants for the Degree of Ph. D. is \$35; for the M. A. or M. S. Degree, \$25, and for each Diploma, \$5. The thesis is printed at the expense of the candidate.

For Graduate Courses see English and Modern Languages and Ancient Languages.

## PREPARATORY DEPARTMENT.

### INSTRUCTORS.

MRS. A. M. TYLER, Principal, and Instructor in English and Latin.  
 G. A. COLE, A. M., Instructor in Mathematics.  
 MARY E. WASHINGTON, Instructor in Geography and English.  
 NAOMI JOSEPHINE WILLIAMS, A. M., Instructor in Latin and History.  
 MRS. E. W. COLE, Instructor in History and Mathematics.  
 MARY DAVIS, Instructor in English Composition.  
 JESSIE L. CRAVENS, B. L., Instructor in Elocution.  
 W. B. BENTLEY, A. M., Acting Instructor in Chemistry.  
 GEORGE W. DROKE, A. M., Acting Instructor in Mathematics.  
 S. E. MEEK, Ph. D., Acting Instructor in Physiology and Botany.  
 W. E. GOLDSBOROUGH, M. E., Acting Instructor in Drawing.  
 WILLIAM FERDINAND BATES, Instructor in Agriculture.  
 J. B. MARCHESELLI, Instructor in Instrumental Music.  
 MRS. S. E. MEEK, Instructor in Vocal Music.  
 F. T. NICHOLAS, Instructor in Woodworking.  
 SAMUEL M. TAFF, Instructor in Foundry.  
 W. D. ASH, Instructor in Forging.

The Preparatory Department is intended, first, to prepare students for any of the courses of study taught in the University; second to furnish to those who cannot take a more extended course, as good a general education as the limited time will permit; third, to prepare teachers for the public grammar schools of the State. To secure these ends, four courses of study are offered.

### REQUIREMENTS FOR ADMISSION.

1. *Arithmetic*.—Students are examined in Wentworth's Grammar School Arithmetic through percentage, and an accurate knowledge of all this is rigidly required. Teachers preparing pupils for admission should require them to learn principles and definitions accurately, and to analyze every example capable of analysis, or should give them thorough drill in mental arithmetic.

2. *English Grammar*.—Harvey's Elementary Grammar and Composition, Part I., with analysis.

3. *Geography*.—The whole of some complete manual of Geography, such as Maury's or Harper's.

4. *Reading*.—Students must be able to understand and to read intelligently specimens from McGuffey's Fifth Reader or from some work equally advanced.

5. *Spelling*.—Of any words contained in McGuffey's Fifth Reader.

### SPECIMEN EXAMINATIONS FOR ADMISSION TO "A" CLASS.

Examinations will be of the same general character as the following:

#### I. ARITHMETIC THROUGH PERCENTAGE, 2 HOURS.

1. A boy runs 3.876 miles, dropping a piece of paper every 4.75 feet. How many pieces does he drop?

*Analysis:* In one mile there are 5280 feet, and in 3.876 miles there are 3.876 times 5280 feet = 20,465.28 feet. If in 4.75 feet he drops 1 piece, in 20,465.28 feet he will drop as many pieces as 4.75 is contained in 20,465.28 feet, which is 4308 papers.

2. Reduce  $\frac{365}{511}$  to its lowest terms.

3. A owns three-fifths of a ship worth \$25,748, B one-fourth of the remainder, C one-eighth of the amount belonging to A and B, and D owns what is still left. What is the value of D's share? Give full analysis.

4. Find cost of papering a room 32 feet long, 22 feet wide, 13 feet high, with paper 18 inches wide, 8 yards in a roll, at \$1.25 a roll, if 50 square yards be allowed for doors, windows, and base boards?

The longitude of New York is 74° west, that of Paris is 2° 20' east. When it is fifteen minutes past 10 a. m. in New York, what is the time in Paris?

#### II. GRAMMAR, 2 HOURS.

1. Name and define all the parts of speech.

2. Name and define all the different kinds of pronouns, all the different kinds of particles, and give an example of each kind.

3. Give three rules for forming the possessive case of nouns, with example of each. What is the possessive case of *conscience*?

4. Analyze the following sentences: (1.) The boy that you saw is my younger brother. (2.) One soldier was present when the roll was called.

#### III. GEOGRAPHY, 1 HOUR.

1. Name in their order twenty rivers flowing into the Atlantic Ocean or its arms between the Bay of Fundy and the Florida Keys.

2. Name the principal cities of Louisiana, Texas, Ohio, Illinois, Michigan and Minnesota (one city each), and describe their situation.

3. Describe the climate and productions of Mexico.

4 and 5. What and where are the following? Give exact locations: Aconcagua, Aral, Baikal, Bothnia, Ceylon, Delhi, Farewell, Formosa, Hecla, Munich, Ponchartrain, Sunda, Verde, Volga, Yukon.

NOTE.—Candidates for Sub-Freshman class, Classical Course, will be examined in Arithmetic, Algebra to fractions, Harvey's Elementary Grammar, Part II.; History of the United States and of Arkansas, Descriptive Geography, and Latin (first seventy-five lessons in Jones's).

Agricultural, scientific, and engineering students are exempt from the Latin examination, having one on Botany and Book-keeping instead. Students entering after the session has begun will be examined also on the work passed over by their class.

#### ORDER OF EXAMINATIONS FOR ADMISSION.

Tuesday, March 6, 9 a. m.: Registration of all students who are required to matriculate.

Wednesday, March 7, 9-12 m.: Registration of other students; 1-4 p. m.: Algebra, Geography.

Thursday, March 8, 9-12 m.: Arithmetic; 1-4 p. m.: Latin, History of Arkansas, Reading.

Friday, March 9, 9-11 a. m.: English Grammar; 11-12 m.: English Composition, Reading; 1-4 p. m.: United States History, General History, Reading.

## AGRICULTURAL COURSE.

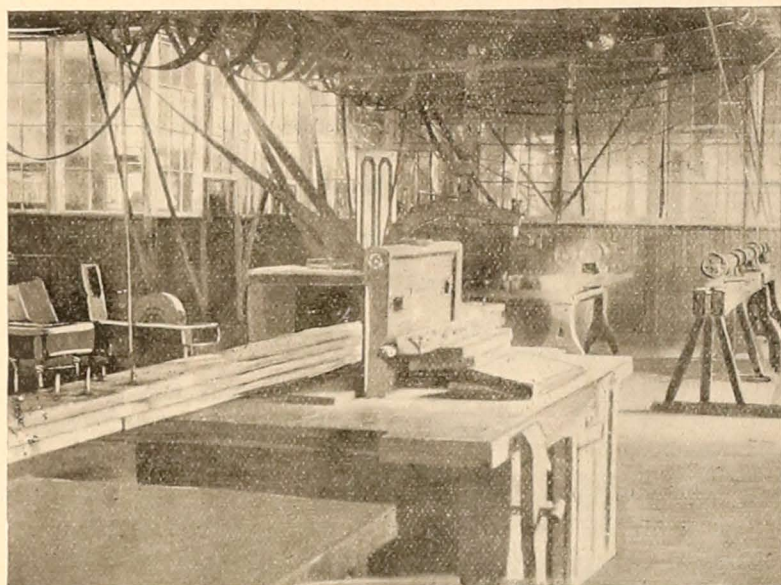
This course prepares students for the School of Agriculture.

## "A" CLASS.

Mathematics, 5; English, 4; History, 3; Botany, 3; Agriculture, 2; Farm and Shop Work, four periods of two hours each.

## SUB-FRESHMAN CLASS.

Mathematics, 5; English, 4; History, 2; Chemistry, 2; Physiology, 2; Agriculture, 2; Farm and Shop Work, four periods of two hours each.



WOOD SHOP

## ENGINEERING AND MANUAL TRAINING COURSES.

## "A" CLASS.

*First Term* —Mathematics, 5; English, 4; History, 3; Book-keeping, 1; Tools and Materials, 1; Free Hand Drawing, 1; Shop Work 3.

*Second Term* —Mathematics, 5; English, 4; History, 3; Book-keeping, 1; Carpentry, 1; Drawing, 1; Shop work, 3.

*Third Term* —Mathematics, 5; History, 3; Book-keeping, 1; English, 4; Pattern Making and Moulding, 1; Drawing, 1; Shop Work, 3.

## SUB-FRESHMAN CLASS.

*First Term*—Mathematics, 5; English, 4; General History, 2; Physiology, 2; Founding and Forging, 1; Drawing, 1; Shop Work, 4; Civil Government, 1.

*Second Term*—Mathematics, 5; English, 4; General History, 2; Physiology, 2; Founding and Forging, 1; Drawing, 1; Shop Work, 4; Civil Government, 1.

*Third Term*—Geometry, 5; English, 4; General History, 2; Physiology, 2; Founding and Forging, 1; Drawing, 1; Shop Work, 4; Civil Government, 1.

NOTE.—Candidates for admission to the Freshman Class in the College of Mechanic Arts and Engineering will be examined in all the subjects required for admission to the University, except Latin.

## SCIENTIFIC COURSE.

This course prepares students for any course in the College of Science.

## “A” CLASS.

Mathematics, 5; English, 4; History, 3; Botany, 3; Book-keeping, 1.

## SUB-FRESHMAN CLASS.

Mathematics, 5; English, 4; History, 2; Civil Government, 1; Chemistry, 2; Physiology, 2.

## CLASSICAL COURSE.

This course prepares students for the College of Liberal Arts or for the Normal School, and gives general education to students who cannot take a collegiate education.

## “A” CLASS.

Mathematics, 5; English, 4; History, 3; Latin, 4.

## SUB-FRESHMAN CLASS.

Mathematics, 5; English, 4; History, 2; Physiology, 2; Latin, 4.

## DETAILED WORK OF THE COURSES.

## SUB-FRESHMAN CLASS.

*Mathematics*, 5.—First and second terms: Wentworth's High School Arithmetic, page 273 to end; Wentworth's Algebra, pages 102 to 260. Third term: Wentworth's Geometry, 3 books.

*English*, 4.—Meiklejohn's Grammar; four essays per term corrected and copied; Shakespeare's Julius Caesar and Merchant of Venice, and Scott's Ivanhoe.

*Parallel Reading*: Eggleston's Pocahontas; Cooke's Surrey of Eagle's Nest; Franklin's Autobiography; Longfellow's Morituri Salutamus, and Voices of the Night; Campbell's Gertrude of Wyoming.

*Latin*, 4.—Four books of Cæsar (Kelsey or Greenough); Gildersleeve's Grammar. Jones's Lessons completed.

*History*, 2.—Appleton's History of the World.

*Physiology*, 2.—Martin's Human Body, Briefer Course, with experiments.

*Chemistry*, 2.—Williams's Introduction to Chemical Science.

*Civil Government*, 1.—Peterman's Civil Government and Johnson's History of American Politics.

*Founding and Forging*.—Moulding; melting and pouring brass and iron; management of cupola; management of fire; drawing; welding; riveting; tempering. Eight hours per week.

*Elementary Dairy Husbandry*.—The primary principles of dairy work are taught by class-room instruction, accompanied with daily practical work in the dairy.

## "A" CLASS.

*Mathematics*, 5.—Wentworth's High School Arithmetic, page 120 to page 273; Wentworth's Algebra to page 102.

*English*, 4.—First term: Harvey's Elementary Grammar completed. Second and third terms: Meiklejohn's Grammar to page 86; Irving's Alhambra and Hawthorne's House of Seven Gables; three original essays per term, corrected and copied.

*Parallel Reading*—Cooper's Spy, and Red Rover; Longfellow's Evangeline; Whittier's Lexington, and Yorktown; Shakespeare's Comedy of Errors; lives of the above authors.

*Latin*, 4.—Jones's First Lessons in Latin with Gildersleeve's Grammar.

*History*, 3.—Eggleston's United States History and Hempstead's History of Arkansas.

*Botany*, 2.

*Book-keeping*.—Bryant and Stratton's Common School Book-keeping.

*Woodworking*—Principles of Carpentry and Joinery, Wood Turning, Pattern Making, Cabinet Work. Eight hours per week.

*Elementary Agriculture*—The reasons for the various farm operations, and the conditions under which they can be most successfully accomplished form the subject matter of the instruction.

## "B" CLASS.

*Mathematics*, 5.—Wentworth's Grammar School Arithmetic through percentage.

*English*, 4.—Harvey's Elementary Grammar; Selections from Irving's Sketch Book.

*Geography*, 4.—Harper's School Geography.

*Reading*, 3.—Hempstead's History of Arkansas.

A student in the Preparatory Department is a member of the highest class with which he has as many as eight recitations per week.

## CATALOGUE OF COLLEGIATE STUDENTS.

ABBREVIATIONS.—Agr., Agricultural; B. A., Bachelor of Arts; B. S., Bachelor of Science; C. E., Civil Engineering; E. E., Electrical Engineering; M. A., Master of Arts; M. E., Mechanical Engineering; M. S., Master of Science; Spec., Special.

## SESSION 1893.

## GRADUATES.

NAME.	RESIDENCE.	COURSE.
Curry, Lula.....	Fayetteville, Washington county.....	M. S.
Shreve, H. B.....	Fayetteville, Washington county.....	Spec.
Vaulx, Julia.....	Fayetteville, Washington county.....	M. A.
Total.....		3

## SENIOR CLASS.

NAME.	RESIDENCE	COURSE.
Armistead, C. F.....	Charleston, Franklin county.....	B. A.
Ash, L. R.....	Fayetteville, Washington county.....	C. E.
Bibb, Blanche.....	Fayetteville, Washington county.....	B. A.
Braly, E. H.....	Fayetteville, Washington county.....	B. A.
Brewer, O. P.....	Webber's Falls, Indian Territory.....	B. S.
Davies, Hodge.....	Fayetteville, Washington county.....	B. A.
Hall, C. E.....	Dardanelle, Yell county.....	C. E.
Irvin, R. B.....	Fayetteville, Washington county.....	M. E.
Martin, Pearl.....	Fayetteville, Washington county.....	B. S.
Moore, J. F.....	Fayetteville, Washington county.....	B. S.
Moore, J. H.....	Fayetteville, Washington county.....	B. S.
Pharr, Harry.....	La Grange, Lee county.....	C. E.
Vance, A. M.....	Pierce City, Mo.....	C. E.
Vandeventer, James.....	Fayetteville, Washington County.....	B. S.
Wood, B. F.....	Fayetteville, Washington county.....	E. E.
Total.....		15

## JUNIOR CLASS.

NAME.	RESIDENCE.	COURSE.
Barr, Ida.....	Fayetteville, Washington county.....	B. S.
Bell, J. C.....	Pontotoc, Miss.....	B. A.
Dyer, Mallie.....	Prairie Grove, Washington county.....	B. A.
Eld, C. J.....	Bentonville, Benton county.....	C. E.
Gibson, J. E.....	Malvern, Hot Spring county.....	M. E.

NAME.	RESIDENCE.	COURSE.
Head, J. D.	Richmond, Little River county	B. A.
Hedrick, O.	Robinson, Benton county	B. S.
Killen, F. W.	Fayetteville, Washington county	B. S.
Leverett, Abbie	Fayetteville, Washington county	B. A.
Mobberly, H. P.	Illawara, La.	C. E.
Mock, E. L.	Prairie Grove, Washington county	B. A.
Mock, Lucy B.	Prairie Grove, Washington county	B. A.
Myar, A. J.	Little Rock, Pulaski county	C. E.
Pittman, R. T.	Fayetteville, Washington county	B. S.
Taff, S. M.	Fayetteville, Washington county	Spec.
Treadwell, S. C.	Toledo, Cleveland county	B. A.
Vandeventer, Willie	Fayetteville, Washington county	Spec.
Wilson, Nellie	Fayetteville, Washington county	Spec.
Total		18

## SOPHOMORE CLASS.

NAME.	RESIDENCE	COURSE.
Allen, Edna	Farmington, Washington county	B. A.
Ash, W. D.	Fayetteville, Washington county	C. E.
Barnett, C. P.	Fayetteville, Washington county	C. E.
Bates, C. D.	Van Buren, Crawford county	B. A.
Beattie, Mary	Fayetteville, Washington county	B. A.
Beavers, J. E.	Charleston, Franklin county	C. E.
Boyd, Ewing	Cooper, Texas	B. A.
Braly, Amanda	Fayetteville, Washington county	B. S.
Braly, Etta	Fayetteville, Washington county	B. S.
Brixey, A. M.	Rogers, Benton county	B. A.
Buehrmann, Mamie	Fayetteville, Washington county	Spec.
Burrow, O. S.	Morrilton, Conway county	Spec.
Campbell, J. L.	Greenwood, Sebastian county	B. A.
Crozier, J. P.	Fayetteville, Washington county	M. E.
Davies, Clyde	Fayetteville, Washington county	B. A.
Davies, Lila	Fayetteville, Washington county	B. A.
Drees, C. J.	Little Rock, Pulaski county	E. E.
Ferguson, Gussie	Fayetteville, Washington county	Spec.
Godfrey, J. H.	Pine Bluff, Jefferson county	B. A.
Goodman, H. H.	Calico Rock, Izard county	B. A.
Goodman, O. S.	Calico Rock, Izard county	B. S.
Gunter, Gertie	Fayetteville, Washington county	B. S.
Hicks, J. W.	Magnolia, Columbia county	E. E.
Kennamer, S. I.	Springfield, Conway county	Normal.
Kirkham, J. E.	Hot Springs, Garland county	C. E.
Leverett, C. J.	Fayetteville, Washington county	B. S.
Lipsev, D. B.	Lonoke, Lonoke county	B. S.
Lucas, E. L.	Star City, Lincoln county	B. A.
Martineau, J. E.	Lonoke, Lonoke county	B. A.
McDearmon, B. C.	Batesville, Independence county	Spec.
Morley, May	Fayetteville, Washington county	Spec.

NAME.	RESIDENCE.	COURSE.
Morley, S. L. ....	Fort Smith, Sebastian county.....	B. S.
Nash, J. D. ....	Waldo, Columbia county.....	B. A.
Nix, Maud.....	Fayetteville, Washington county.....	B. S.
Remy, Mollie.....	Mulberry, Franklin county.....	Normal.
Rudolph, F. E.....	Austin, Texas.....	C. E.
Russell, Chester.....	Russellville, Pope county.....	B. A.
Rutherford, H. H.....	Fort Smith, Sebastian county.....	Spec.
Simonds, Allie.....	Fayetteville, Washington county.....	B. S.
Towery, B. H.....	Genoa, Miller county.....	B. S.
Vaulx, Kate.....	Fayetteville, Washington county.....	B. A.
Vaulx, Madge.....	Fayetteville, Washington county.....	B. A.
Washington, Ruby.....	Cincinnati, Washington county.....	Spec.
Williams, Jennie.....	Fayetteville, Washington county.....	B. A.
Williams, Matie.....	Fayetteville, Washington county.....	Normal.
Wood, Norma.....	Van Buren, Crawford county.....	B. A.
Total.....		46

## FRESHMAN CLASS.

NAME.	RESIDENCE.	COURSE.
Adams, C. D.....	Fayetteville, Washington county.....	B. S.
Anderson, Tim.....	Fayetteville, Washington county.....	E. E.
Arbuckle, L. M.....	Charleston, Franklin county.....	Normal.
Askew, W. H.....	Magnolia, Columbia county.....	B. A.
Babb, Hattie.....	Boonsboro, Washington county.....	B. S.
Baker, E. M.....	Witcherville, Sebastian county.....	B. S.
Barr, Frank.....	Fayetteville, Washington county.....	C. E.
Batton, F. H.....	Eureka Springs, Carroll county.....	B. S.
Braly, E. K.....	Fayetteville, Washington county.....	C. E.
Byars, Blanche.....	Alma, Crawford county.....	Normal.
Campbell, H. A.....	Washburn, Sebastian county.....	C. E.
Campbell, Loren.....	Boonsboro, Washington county.....	B. A.
Chamness, W. T.....	Center Ridge, Conway county.....	B. A.
Cherry, Anna.....	Fayetteville, Washington county.....	Normal.
Crozier, A. B.....	Fayetteville, Washington county.....	C. E.
Davies, Ena.....	Fayetteville, Washington county.....	B. S.
Dowell, Frank.....	Fayetteville, Washington county.....	B. S.
Duncan, Cameron.....	Fayetteville, Washington county.....	B. S.
Evins, F. P.....	Boonsboro, Washington county.....	M. E.
Gray, C. H.....	Little Rock, Pulaski county.....	B. S.
Grother, Mary.....	Fayetteville, Washington county.....	Spec.
Hale, E. J.....	Springdale, Washington county.....	Normal.
Hardin, Lena.....	Fayetteville, Washington county.....	B. A.
Hardin, Nina.....	Fayetteville, Washington county.....	B. A.
Harris, Alice.....	Fayetteville, Washington county.....	Spec.
Hart, Effie V.....	Bethany, Mo.....	Spec.
Head, Claude.....	Richmond, Little River county.....	B. A.
Hedrick, G. A.....	Little Rock, Pulaski county.....	C. E.
Holcomb, Joe Bell.....	Fayetteville, Washington county.....	B. A.

NAME.	RESIDENCE.	COURSE.
Holleman, Inez.....	Fayetteville, Washington county.....	B. A.
Hudspeth, J. L.....	Hamburg, Ashley county.....	B. A.
Hunt, Nell.....	Fayetteville, Washington county.....	B. S.
Hunter, H. L.....	Star City, Lincoln county.....	Spec.
Jeffers, S. L.....	Ozark, Franklin county.....	B. A.
Kantz, Mary.....	Fayetteville, Washington county.....	B. A.
Kantz, Mattie.....	Fayetteville, Washington county.....	B. A.
Kelso, J. M.....	Magnolia, Columbia county.....	B. A.
Kemp, Fannie.....	Fayetteville, Washington county.....	B. S.
Lawler, T. D.....	Little Rock, Pulaski county.....	B. S.
Lawrence, R. L.....	Appleton, Pope county.....	Spec.
Leverett, Rose.....	Fayetteville, Washington county.....	B. A.
Lewis, Lucius L.....	Fayetteville, Washington county.....	B. A.
Matlock, J. D.....	Stattler, Crawford county.....	Normal.
McCrimmon, Alice.....	Fayetteville, Washington county.....	Spec.
McDaniel, A. J.....	Forrest City, St. Francis county.....	C. E.
McNair, May.....	Fayetteville, Washington county.....	B. S.
McNeill, Dane.....	Fayetteville, Washington county.....	M. E.
+ Medearis, R. S.....	Cincinnati, Washington county.....	B. A.
Mills, Fannie.....	Little Rock, Pulaski county.....	Normal
Mobberly, Edgar.....	Illawara, La.....	E. E.
Mobley, C. J.....	Jonesboro, Crawford county.....	B. A.
Mooney, Robt.....	Fayetteville, Washington county.....	B. A.
Moore, Ada.....	Cincinnati, Washington county.....	B. S.
Moore, Ira.....	Farmington, Washington county.....	M. E.
Moore, J. L.....	Cincinnati, Washington county.....	E. E.
Moore, Martha.....	Cincinnati, Washington county.....	B. S.
Morrow, D. C.....	Cincinnati, Washington county.....	E. E.
Nolen, L. C.....	Sub Rosa, Franklin county.....	B. A.
Norwood, T. M.....	Enola, Faulkner county.....	Normal.
Nutt, W. B.....	Fordyce, Dallas county.....	B. A.
Patterson, Daisy.....	Springdale, Washington county.....	B. A.
Patterson, Hugh.....	Springdale, Washington county.....	B. A.
Patterson, Kate.....	Springdale, Washington county.....	B. A.
Philbeck, R. E.....	Bentonville, Benton county.....	B. A.
Pittman, James.....	Prairie Grove, Washington county.....	B. A.
Pond, Octavia.....	Farmington, Washington county.....	Spec.
Porter, J. R.....	Harmony, Johnson county.....	B. A.
Price, C. G.....	Snapp, Woodruff county.....	B. A.
Priddy, A. B.....	Magazine, Logan county.....	B. A.
Pruett, W. E.....	Altus, Franklin county.....	B. A.
Putman, L. R.....	Fayetteville, Washington county.....	M. E.
Ross, W. A.....	Boonsboro, Washington county.....	E. E.
Russell, D. B.....	Morrilton, Conway county.....	B. A.
Sadler, Jasmine.....	Ozark, Franklin county.....	Normal.
Sanderson, S. A.....	Fayetteville, Washington county.....	B. A.
Shaha, R.....	Richmond, Mo.....	B. A.
Shuler, T. F.....	Lewisville, Lafayette county.....	Normal.

NAME.	RESIDENCE.	COURSE.
Smith, Gertie.....	Fayetteville, Washington county.....	Spec.
Spencer, A. R.....	Charleston, Franklin county.....	B. S.
Spencer, E. L.....	Charleston, Franklin county.....	B. A.
Spencer, Mary.....	Charleston, Franklin county.....	B. A.
Spencer, W. M.....	Charleston, Franklin county.....	C. E.
Stotts, J. R.....	Huntsville, Madison county.....	Normal.
Strange, G. H.....	Buckner, Columbia county.....	B. A.
Swift, J. M.....	Smedley, Johnson county.....	B. A.
Taylor, Mattie.....	Fayetteville, Washington county.....	B. S.
Turner, N. G.....	Marvell, Phillips county.....	B. A.
Vaughan, Mollie.....	Fayetteville, Washington county.....	B. S.
Ward, W. C.....	Mulberry, Franklin county.....	Normal.
Watson, E. L.....	Newport, Jackson county.....	Spec.
Weir, E. S.....	Elm Springs, Washington county.....	B. S.
Williams, Hattie.....	Fayetteville, Washington county.....	B. A.
Wilson, A. J.....	Monticello, Drew county.....	B. A.
Wood, Elma.....	Buckner, Columbia county.....	Normal.
Wood, W. H.....	Fayetteville, Washington county.....	M. E.
Wright, A. B.....	Fayetteville, Washington county.....	B. S.
Total.....		96

## SPECIAL.

NAME	RESIDENCE	COUNTY.
Croxdale, J. H.....	Bentonville.....	Benton
Gray, Ethel.....	Fayetteville.....	Washington
Harris, Josie.....	Fayetteville.....	Washington
Harris, Rowena.....	Fayetteville.....	Washington
Kerr, E. W.....	Centralia, Ill.....	—
White, Lula.....	Fayetteville.....	Washington
Total.....		6

## SUMMARY BY COURSES.

Graduates.....	3
Seniors.....	15
Juniors.....	18
Sophomores.....	46
Freshmen.....	96
Special.....	6
Total.....	184

## SUMMARY BY CLASSES.

Master of Arts.....	1
Master of Science.....	1
Bachelor of Arts.....	68
Bachelor of Science.....	38
Civil Engineering.....	19
Electrical Engineering.....	7
Mechanical Engineering.....	9
Normal.....	15
Special.....	26
Total.....	<hr/> 184

## CATALOGUE OF PREPARATORY STUDENTS.

## FOR EXPLANATION OF ABBREVIATIONS

(See Page 105).

NAME.	RESIDENCE.	COURSE.
Abernathy, W. H.	Warren, Bradley county	Agr.
Anderson, J. H.	Fayetteville, Washington county	C. E.
Armstrong, A. C.	Van Buren, Crawford county	C. E.
Babb, C. B.	Boonsboro, Washington county	C. E.
Baggett, J. B.	Prairie Grove, Washington county	B. S.
Baker, L. A.	Buckner, Columbia county	B. S.
Baker, Minnie.	Witcherville, Sebastian county	B. S.
Baldwin, Ada.	Mansfield, Sebastian county	B. A.
Bates, J. S.	Dutch Mills, Washington county	Agr.
Bayless, Agnes.	Huntington, Sebastian county	B. S.
Bean, J. L.	Boonsboro, Washington county	B. A.
Bibb, Lillian.	Fayetteville, Washington county	B. A.
Bishop, Annie.	Fayetteville, Washington county	Spec.
Blackwell, Barbara.	Perryville, Perry county	Normal.
Bradley, W. F.	Eureka Springs, Carroll county	M. E.
Broadrick, Eva.	Johnson, Washington county	Normal.
Brown, Mary.	Fayetteville, Washington county	B. A.
Buchanan, Florence.	Boonsboro, Washington county	Normal.
Buchanan, Maud.	Boonsboro, Washington county	Normal.
Buck, H. P.	Medford, Desha county	M. E.
Buffington, W. R.	College Hill, Columbia county	B. A.
Bumpass, E. W.	Beebe, White county	E. E.
Bushmiaer, W. A.	Alma, Crawford county	B. A.
Carter, Josie.	Fayetteville, Washington county	B. S.
Cawood, J. B.	Osage Mills, Benton county	M. E.
Chastain, Chas.	Bentonville, Benton county	B. S.
Clancy, Nellie.	Fayetteville, Washington county	B. S.
Clegg, M. T.	Morrilton, Conway county	E. E.
Cole, C. E.	Dardanelle, Yell county	M. E.
Cole, I. A.	Fayetteville, Washington county	B. S.
Cole, Lillie.	Dardanelle, Yell county	Normal.
Cole, Lizzie.	Dardanelle, Yell county	B. S.
Conner, Agnes.	Fayetteville, Washington county	Spec.
Cookson, S. L.	Fayetteville, Washington county	M. E.
Cory, A. B.	Robinson, Benton county	E. E.
Cowgill, P. B.	Fayetteville, Washington county	M. E.
Cowgill, W. B.	Fayetteville, Washington county	Normal.
Curry, E. R.	Fayetteville, Washington county	B. S.
Curry, Merle.	Fayetteville, Washington county	B. A.

NAME.	RESIDENCE.	COURSE.
Dacus, J. A. ....	Chickalah, Yell county.....	B. A.
Davis, A. H. ....	Lavaca, Sebastian county.....	B. S.
Davis, E. W. ....	Island, Sebastian county.....	B. A.
Davis, W. R. ....	Bentonville, Benton county.....	B. A.
Dean, D. E. ....	Ozark, Franklin county.....	Agr.
Duncan, Eleanor.....	Fayetteville, Washington county.....	B. A.
Dye, Reuben.....	Forrest City, St. Francis county.....	M. E.
Easterly, Maud.....	Boonsboro, Washington county.....	Normal.
Ellis, Maggie.....	Fayetteville, Washington county.....	Normal.
Ferguson, J. D. ....	Genoa, Miller county.....	B. S.
Fishback, W. M. ....	Fort Smith, Sebastian county.....	E. E.
Fletcher, J. D. ....	Fayetteville, Washington county.....	B. A.
Frost, B. A. ....	Maryville, Mo.....	M. E.
Galloway, Charlotte.....	Fayetteville, Washington county.....	B. A.
Gates, Hugh.....	Fayetteville, Washington county.....	B. A.
Goldsborough, T. A.....	Greensborough, Md.....	B. A.
Goodrich, Leon.....	Osceola, Mississippi county.....	C. E.
Gray, B. C. ....	Conway, Faulkner county.....	B. S.
Griffin, Kate.....	Fayetteville, Washington county.....	B. S.
Grimmett, J. H. ....	Magnolia, Columbia county.....	B. A.
Grother, Henry.....	Fayetteville, Washington county.....	B. S.
Guilliams, R. F. ....	Farmington, Washington county.....	Agr.
Guilliams, W. E. ....	Farmington, Washington.....	Agr.
Hagood, Clara.....	Boonsborough, Washington county.....	Spec.
Hale, Winona.....	Elkins, Washington county.....	Normal
Hardin, J. L. ....	Ten Mile, Tenn.....	B. S.
Hardin, Kate.....	Fayetteville, Washington county.....	B. A.
Harris, Minnie.....	Fayetteville, Washington county.....	B. A.
Hassett, Lida.....	Alma, Crawford county.....	B. S.
Hayes, L. C. ....	Webber's Falls, I. T. ....	B. S.
Head, Clyde.....	Richmond, Little River county.....	B. A.
Henderson, C. H. ....	Pocahontas, Randolph county.....	B. A.
Hight, J. F. ....	Wesley, Madison county.....	B. A.
Hoops, Cora.....	Vienna, Mo.....	B. A.
Howell, Carrie.....	Fayetteville, Washington county.....	B. A.
Howell, H. A. ....	Russellville, Pope county.....	B. S.
Howell, Willey.....	Fayetteville, Washington county.....	B. A.
Hunter, E. V. ....	Lone Elm, Franklin county.....	B. A.
Ingraham, Lee.....	Lavaca, Sebastian county.....	B. A.
Jacobs, L. P. ....	Harmony, Johnson county.....	B. A.
Jones, T. F. ....	Fayetteville, Washington county.....	M. E.
Jones, W. C. ....	Hampton, Calhoun county.....	Agr.
Kelly, T. M. ....	Brinkley, Monore county.....	B. S.
Kincheloe, J. H. ....	Conway, Faulkner county.....	E. E.
King, O. O. ....	Harmony, Johnson county.....	B. A.
Lackey, Annie.....	Fayetteville, Washington county.....	B. A.
Lackey, Dot.....	Fayetteville, Washington county.....	B. A.
Leach, H. M. ....	Conway, Faulkner county.....	E. E.

NAME.	RESIDENCE.	COURSE.
Lewis, Lena.....	Fayetteville, Washington county.....	B. A.
Lewis, Linn L.....	Fayetteville, Washington county.....	B. S.
Lipsey, Alva.....	Lonoke, Lonoke county.....	B. S.
Looney, W. W.....	Mountainburg, Crawford county.....	B. S.
Lucas, J. S.....	Alma, Crawford county.....	B. A.
Marr, J. V.....	Magazine, Logan county.....	Normal.
Mason, W. P.....	Forrest City, St. Francis county.....	B. A.
May, Mary.....	Fayetteville, Washington county.....	B. A.
Mayes, Cora.....	Fayetteville, Washington county.....	B. A.
Mayes, Lula.....	Fayetteville, Washington county.....	Normal.
Mayes, Pauline.....	Fayetteville, Washington county.....	B. A.
McClanahan, W. T.....	Fayetteville, Washington county.....	C. E.
McGill, Tom.....	Brinkley, Monroe county.....	C. E.
McIlroy, Kate.....	Bayetteville, Washington county.....	B. S.
Mills, Tina.....	Little Rock, Pulaski county.....	Spec.
Morley, C. M.....	Fayetteville, Washington county.....	M. E.
Morrow, Cordia.....	Cincinnati, Washington county.....	B. S.
Morrow, Lula.....	Fayetteville, Washington county.....	Normal.
Murfee, J. M.....	Fayetteville, Washington county.....	B. S.
Murfee, W. H.....	Fayetteville, Washington county.....	M. E.
Myers, Cora.....	Fayetteville, Washington county.....	B. A.
Norman, Percy.....	Seba, Benton county.....	C. E.
Oxley, Hardy.....	Paragould, Greene county.....	B. A.
Parkes, Lillie.....	Webb City, Franklin county.....	B. A.
Pettigrew, Nellie.....	Fayetteville, Washington county.....	Spec.
Pile, T. T.....	Van Buren, Crawford county.....	B. S.
Pond, George.....	Farmington, Washington county.....	Spec.
Powell, B. V.....	Wild Oak, Ouachita county.....	B. S.
Powell, E. P.....	Kansas City, Mo.....	B. S.
Powell, Nellie.....	Montreal, Sebastian county.....	B. S.
Pugh, Celeste.....	Bentonville, Benton county.....	B. S.
Pugh, Cynthia.....	Bentonville, Benton county.....	B. S.
Rader, Mattie.....	Stuttgart, Arkansas county.....	B. S.
Rader, R. E.....	Stuttgart, Arkansas county.....	C. E.
Rankin, J. H.....	Chester, Crawford county.....	Agr.
Reynolds, Hattie.....	Boonsboro, Washington county.....	Spec.
Righton, H. H.....	Helena, Phillips county.....	B. A.
Rudolph, W. J.....	Austin, Texas.....	C. E.
Sappington, Kate.....	Clarksburg, Mo.....	Normal.
Seymour, Jas.....	Fayetteville, Washington county.....	B. A.
Shannon, Dora.....	Fayetteville, Washington county.....	B. S.
Shaw, R. E.....	Cuba, Alabama.....	B. A.
Skelton, J. E.....	Fayetteville, Washington county.....	B. S.
Skillern, J. A.....	Fayetteville, Washington county.....	B. A.
Smith, A. E.....	Fayetteville, Washington county.....	Spec.
Snapp, J. H.....	Snapp, Woodruff county.....	B. S.
Sparks, A. E.....	Fordyce, Dallas county.....	B. A.
Stubblefield, Arthur.....	Cassville, Mo.....	M. E.

NAME.	RESIDENCE.	COURSE.
Summers, J. F.....	Forrest City, St. Francis county.....	Agr.
Swope, Allie.....	Clarendon, Monroe county.....	B. A.
Taylor, Rose.....	Fayetteville, Washington county.....	B. S.
Thomas, B. W.....	Mountainburg, Crawford county.....	Normal.
Thomason, Annie.....	Odessa, Mo.....	Normal.
Thurman, Sarah.....	Fayetteville, Washington county.....	B. A.
Turner, B. E.....	Marvell, Phillips county.....	M. E.
Walker, W. S.....	Memphis, Tenn.....	M. E.
Wigley, J. A.....	Mulberry, Franklin county.....	B. A.
Williams, W. M.....	Fayetteville, Washington county.....	Agr.
Woodburn, E. D.....	Fordyce, Dallas county.....	B. A.
York, J. M.....	West Fork, Washington county.....	C. E.
Total.....		147

## "A" CLASS.

NAME.	RESIDENCE.	COURSE.
Ahrens, Mary.....	Tyler, Texas.....	B. S.
Alden, Minnie.....	Osage Mills, Benton county.....	B. A.
Allen, J. A.....	Farmington, Washington county.....	C. E.
Ash, Gertrude.....	Fayetteville, Washington county.....	B. A.
Ayers, W. E.....	Osceola, Mississippi county.....	C. E.
Ball, Minnie.....	Mansfield, Sebastian county.....	B. S.
Banks, J. N.....	Fayetteville, Washington county.....	C. E.
Barry, Kate.....	Fayetteville, Washington county.....	B. A.
Baum, J. M.....	Fayetteville, Washington county.....	B. S.
Beattie, G. M.....	Fayetteville, Washington county.....	B. S.
Bell, W. S.....	Haynes, Lee county.....	Agr.
Black, R. F.....	Hampton, Calhoun county.....	C. E.
Bush, W. L.....	Boonsboro, Washington county.....	B. A.
Carnay, E.....	Prairie Grove, Washington county.....	C. E.
Casteel, G. D.....	Forrest City, St. Francis county.....	B. S.
Cato, Ernest.....	Fayetteville, Washington county.....	Agr.
Clayton, Powell.....	Eureka Springs, Carroll county.....	B. S.
Coffey, C. D.....	Fayetteville, Washington county.....	B. S.
Cole, Mattie J.....	Boonsboro, Washington county.....	B. S.
Conner, Birdie.....	Fayetteville, Washington county.....	Spec.
Conner, Ethel.....	Fayetteville, Washington county.....	Spec.
Cory, H. J.....	Robinson, Benton county.....	Agr.
Cravens H. W.....	Hartman, Johnson county.....	Agr.
Curry, W. E.....	Fayetteville, Washington county.....	M. E.
Davenport, Fannie.....	Fayetteville, Washington county.....	B. S.
Davidson, J. R.....	Ozark, Franklin county.....	M. E.
Davis, D. M.....	Atlanta, Columbia county.....	B. A.
Davis, E. T.....	Island, Sebastian county.....	B. A.
Dean, Simeon.....	Weldon, Jackson county.....	B. A.
Deaver, BIRTHA.....	Springdale, Washington county.....	B. A.
Dorsey, Nellie.....	Fayetteville, Washington county.....	B. S.

NAME.	RESIDENCE.	COURSE.
Dowell, Pearl.....	Fayetteville, Washington county.....	B. S.
Driver, Effie.....	Springdale, Washington county.....	B. A.
Dunn, R. B.....	Hampton, Calhoun county.....	C. E.
Ellis, Gertrude.....	Fayetteville, Washington county.....	B. A.
Evins, H. C.....	Boonsboro, Washington county.....	B. S.
Evins, Sallie.....	Prairie Grove, Washington county.....	Normal.
Farly, M. M.....	Wedington, Washington county.....	E. E.
Fishback, H. Y.....	Fort Smith, Sebastian county.....	E. E.
Gaskell, Lettie.....	Fayetteville, Washington county.....	B. A.
Gee, Estelle E.....	Fayetteville, Washington county.....	Normal.
Goar, Marie.....	Little Rock, Pulaski county.....	B. A.
Greer, J. T.....	Tolu, Washington county.....	C. E.
Griffin, Kate.....	Fayetteville, Washington county.....	B. S.
Hagood, Minnie.....	Boonsboro, Washington county.....	B. A.
Hagood, Sidney.....	Boonsboro, Washington county.....	M. E.
Hamilton, D. C.....	Fayetteville, Washington county.....	C. E.
Harris, W. S.....	Cypert, Crittenden county.....	M. E.
Hill, Lola.....	Winslow, Washington county.....	B. A.
Hillman, W. E.....	Fordyce, Dallas county.....	B. S.
Hinds, W.....	Van Buren, Crawford county.....	B. A.
Hinman, E.....	Wade, Mo.....	M. E.
Hodgins, John.....	Charleston, Franklin county.....	B. A.
Hopper, J. R.....	Riverside, Woodruff county.....	Agr.
Hunt, Howard.....	Fayetteville, Washington county.....	C. E.
Hurlbert, F. H.....	Kansas City, Mo.....	M. E.
James, R. M.....	Bentonville, Benton county.....	E. E.
Jones, Doswell.....	Fayetteville, Washington county.....	E. E.
Jones, Eugene.....	Fayetteville, Washington county.....	Agr.
Jones, H. C.....	Hamlin, Crawford county.....	Agr.
Jones, L. R.....	Fayetteville, Washington county.....	Agr.
Jones, Mary D.....	Robinson, Benton county.....	B. S.
Kantz, Maggie.....	Fayetteville, Washington county.....	B. A.
Kantz, Maud.....	Fayetteville, Washington county.....	B. A.
Kell, Bessie.....	Fayetteville, Washington county.....	B. A.
Kelly, T. R.....	Tulip, Dallas county.....	B. A.
Kirten, C. S.....	Little Rock, Pulaski county.....	C. E.
Knowls, B. T.....	Watalula, Franklin county.....	Agr.
Lawrence, J. F.....	Greenwood, Sebastian county.....	B. A.
Locke, J. W.....	Wedington, Washington county.....	E. E.
Long, Margaret.....	Fayetteville, Washington county.....	B. S.
Looney, G. W.....	Chester, Crawford county.....	B. S.
Looney, Laura L.....	Chester, Crawford county.....	B. S.
Lowe, Harriet.....	Fayetteville, Washington county.....	B. A.
Luther, Lula.....	Fayetteville, Washington county.....	B. S.
Magness, Jas.....	Newark, Independence county.....	B. A.
Mayfield, Minnie.....	Fort Worth, Texas.....	B. S.
McCrackin, Byrd.....	Fayetteville, Washington county.....	B. S.
McNutt, A. B.....	Genoa, Miller county.....	B. A.

NAME.	RESIDENCE.	COURSE.
McPhetridge, E.	Dallas, Polk county	B. A.
Melton, H. A.	Dardanelle, Yell county	E. E.
Monroe, Dora.	Fayetteville, Washington county	B. S.
Moore, C. L.	Boonsboro, Washington county	B. A.
Moore, Corinne.	Rogers, Benton county	B. S.
Moore D. W.	Van Buren, Crawford county	B. A.
Moore, Ethel.	Boonsboro, Washington county	Normal.
Moore, F. N.	Cincinnati, Washington county	M. E.
Mooring, Mary.	Fayetteville, Washington county	B. S.
Morrow, Agnes.	Cincinnati, Washington county	B. S.
Morrow, J. A.	Hubbard, Washington county	C. E.
Mount, A. L.	Fayetteville, Washington county	Agr.
Myers, Belva.	Fayetteville, Washington county	B. S.
Odle, R. A.	Wedington, Washington county	B. S.
Oliver, Bessie.	Fayetteville, Washington county	B. S.
Oliver, Kate.	Fayetteville, Washington county	B. A.
Owenby, Garland.	Springdale, Washington county	B. A.
Palmer, H. D.	Star City, Lincoln county	Agr.
Payne, D. G.	Monticello, Drew county	C. E.
Pettigrew, G. G.	Fayetteville, Washington county	C. E.
Philbeck, J. W.	Bentonville, Benton county	C. E.
Phillips, F. H.	Dardanelle, Yell county	C. E.
Powell, Jessie.	Montreal, Sebastian county	Agr.
Priddy, Blanche.	Magazine, Logan county	Normal.
Purdy, Lizzie.	Fayetteville, Washington county	B. S.
Renfro, B. P.	Alma, Crawford county	Agr.
Richards, Thos.	Hartman, Johnson county	Normal.
Riley, Cora.	Fayetteville, Washington county	B. S.
Robinson, Mary.	Fayetteville, Washington county	B. S.
Robinson, Pearl.	Fayetteville, Washington county	B. S.
Rogers, R. E.	Huntington, Hot Spring county	B. S.
Ross, Lucy.	Boonsboro, Washington county	B. A.
Ross, Sallie.	Boonsboro, Washington county	B. S.
Rosser, Florence.	Fayetteville, Washington county	B. A.
Rosser, J. T.	Fayetteville, Washington county	B. A.
Saxon, R. L.	Smackover, Union county	C. E.
Scott, Ollie.	Fayetteville, Washington county	B. S.
Sellers, Addie.	Perryville, Perry county	B. S.
Sherwood, A. H.	Fayetteville, Washington county	M. E.
Sheffield, W. L.	Robinson, Benton county	Agr.
Simonds, E.	Fayetteville, Washington county	C. E.
Smith, Myrtle.	Springdale, Washington county	B. S.
Smith, W. H.	Fayetteville, Washington county	B. S.
Stone, May.	Fayetteville, Washington county	Spec.
Surgnier, F. L.	Pactolus, Benton county	B. A.
Talley, E. L.	Fayetteville, Washington county	B. S.
Taylor, Claude.	Fayetteville, Washington county	B. S.
Taylor, Herman.	Bebee, White county	E. E.

NAME.	RESIDENCE.	COURSE.
Thomason, Demmie.....	Fayetteville, Washington county.....	B. S.
Thompson, A. S.....	Boonsboro, Washington county.....	Agr.
Thurman, J. E.....	Cincinnati, Washington county.....	M. E.
Thurman, J. W.....	Cincinnati, Washington county.....	M. E.
Tilley, Clara.....	Rhea's Mill, Washington county.....	B. A.
Tilley, Mary.....	Rhea's Mill, Washington county.....	B. A.
Tulley, L.....	Little Rock, Pulaski county.....	E. E.
Vandeventer, Geraldine.....	Fayetteville, Washington county.....	B. A.
Vedder, Ernest.....	Windom, Kansas.....	M. E.
Wade, J. S.....	Fayetteville, Washington county.....	M. E.
Wade, Lewis.....	Fayetteville, Washington county.....	M. E.
Ward, H. O.....	Greenland, Washington county.....	Agr.
Warren, J. L.....	Buckner, Columbia county.....	B. S.
Watkins, Stella.....	Fayetteville, Washington county.....	B. A.
Watson, Katherine.....	Bentonville, Benton county.....	Spec.
White, Italyne.....	Fayetteville, Washington county.....	B. S.
Wiley, W. B.....	Magnolia, Columbia county.....	B. S.
Wilkerson, J. T.....	Seligman, Missouri.....	Agr.
Williams, Georgie.....	Fayetteville, Washington county.....	B. A.
Williams, Ione.....	Fayetteville, Washington county.....	B. S.
Williams, R. H.....	Frankfort, Indiana.....	B. A.
Wisdom, L. A.....	Lone Elm, Franklin county.....	M. E.
Total.....		149

## "B" CLASS.

NAME.	RESIDENCE.	COUNTY.
Baker, Florence.....	Fayetteville.....	Washington
Bates, J. R.....	Sexton.....	Washington
Beller, C. Y.....	Cincinnati.....	Washington
Bookout, A.....	Hackett.....	Sebastian
Bradley, F.....	Ozark.....	Franklin
Clark, F. L.....	West Fork.....	Washington
Clayton, Fred.....	Eureka Springs.....	Carroll
Clendenin, J. L.....	Gassville.....	Baxter
Cole, Lula.....	Boonsboro.....	Washington
Cooper, Sallie.....	Fayetteville.....	Washington
Cox, Gilbert.....	Fayetteville.....	Washington
Dowell J. E.....	Fayetteville.....	Washington
Hill, Emily.....	Fayetteville.....	Washington
Hopkins, C. L.....	Lagrange.....	Lee
Hutchinson, H. D.....	Magnolia.....	Columbia
Jones, C. R.....	Robinson.....	Benton
Knesal, E. L.....	Fayetteville.....	Washington
Knox, P. M.....	Lo Pile.....	Union
Leverett, E. B.....	Fayetteville.....	Washington
Luther, Ada.....	Wedington.....	Washington
Mathews, Robt.....	Rhea's Mill.....	Washington
McAndrew, H. R.....	Bentonville.....	Benton

NAME.	RESIDENCE.	COUNTY.
McAndrew, J. A.....	Bentonville.....	Benton
Moore, L. R.....	Oak Lodge, Indian Territory.....	—
Moore, Ray.....	Little Bay.....	Calhoun
Morgan, J. W.....	West Plains, Missouri.....	—
Oliver, A. G.....	Lee's Creek.....	Crawford
Parks, Bessie.....	Boonsboro.....	Washington
Pullen, R. A.....	Rocky Comfort.....	Little River
Purdy, W. F.....	Fayetteville.....	Washington
Rogers, Lanier.....	Clementine.....	Benton
Slaughter, M. L.....	Webber's Falls, Indian Territory.....	—
Stone, S. K.....	Fayetteville.....	Washington
Taylor, R. W.....	Forrest City.....	St. Francis
Taylor, T. J.....	Fayetteville.....	Washington
Tharp, Dudley.....	Fayetteville.....	Washington
Thurman, Ed.....	Farmington.....	Washington
Tilley, Ada.....	Rhea's Mill.....	Washington
Torrence, G. J.....	Fordyce.....	Dallas
Townshend, J. Q.....	Little Rock.....	Pulaski
Traylor, Green.....	Richmond.....	Little River
Whately, P. D.....	Champagnolle.....	Union
Whitaker, J. L.....	Fayetteville.....	Washington
Wisdom, G. L.....	Lone Elm.....	Franklin
Total.....		44

## NOT CLASSIFIED.

NAME.	RESIDENCE.	COUNTY.
Black, W. M. C.....	Fort Smith.....	Sebastian
Evins, H. C.....	Fayetteville.....	Washington
Fletcher, Mary.....	Springfield, Missouri.....	—
Gallaher, Bessie.....	Robinson.....	Benton
McBee, Ernest.....	McBee's Landing.....	Marion
Morrow, Sam.....	Billingsly.....	Washington
Quarles, Jos.....	Aurora, Missouri.....	—
Sadler, Bertha.....	Ozark.....	Franklin
Taylor, Sam'l.....	Lagrange.....	Lee
Whitaker, T. J.....	Fayetteville.....	Washington
Total.....		10

## SUMMARY BY CLASSES.

Sub-Freshmen.....	147
"A's".....	149
"B's".....	44
Not Classified.....	10
Total.....	350

## SUMMARY BY COURSES.

Bachelor of Arts.....	88
Bachelor of Science.....	78
Civil Engineering.....	30
Electrical Engineering.....	12
Mechanical Engineering.....	29
Agricultural.....	27
Normal.....	20
Special.....	12
"B" Students (courses not assigned).....	44
Not Classified.....	10
Total.....	<hr/> 350

## CATALOGUE OF MEDICAL STUDENTS.

SESSION 1892-3.

NAME.	PRECEPTOR.	STATE.
Allison, J. S. ....	J. H. Brewster, M. D. ....	Arkansas
Armstrong, J. C. * .....	A. J. French, M. D. ....	Texas
Baily, A. C. ....	Med. Dept. A. I. U. ....	Arkansas
Baker, J. E. * .....	W. P. Baker, M. D. ....	Arkansas
Baker, M. A. ....	Med. Dept. A. I. U. ....	Arkansas
Barnett, J. J. * .....	S. J. Britz, M. D. ....	Arkansas
Beakley, N. B. * .....	L. P. Gibson, M. D. ....	Arkansas
Becket, J. B. ....	F. D. Bush. ....	I. Territory
Bentley, C. E. ....	E. Bentley, M. D. ....	Arkansas
Blakely, J. P. * .....	W. H. Taylor. ....	Arkansas
Blakely, T. B. * .....	B. C. Huff. ....	Arkansas
Brasswell, A. M. ....	Drs. Bell & McKinley. ....	Texas
Bratton, L. E. ....	D. P. Redwine. ....	Arkansas
Campbell, C. K. ....	J. M. Campbell, M. D. ....	Arkansas
Cantrell, C. E. * .....	Med. Dept. A. I. U. ....	Arkansas
Click, J. W. ....	Med. Dept. A. I. U. ....	Arkansas
Collins, F. A. * .....	E. Bentley. ....	Arkansas
Davenport, R. G. * .....	B. R. Bradley. ....	Texas
Dixon, Ira. ....	T. L. Knight. ....	Arkansas
Elliot, G. T. ....	Drs. Bell & McKinley. ....	Texas
Graham, A. J. ....	Med. Dept. A. I. U. ....	Arkansas
Hale, W. * .....	Med. Dept. A. I. U. ....	Texas
Hale, W. M. ....	Med. Dept. A. I. U. ....	Texas
Hancock, J. I. * .....	Med. Dept. A. I. U. ....	Arkansas
Harkey, W. I. * .....	Med. Dept. A. I. U. ....	Arkansas
Harris, L. L. * .....	Med. Dept. A. I. U. ....	Arkansas
Henley, J. A. ....	Med. Dept. A. I. U. ....	Arkansas
Hood, C. E. ....	W. P. Townsend, M. D. ....	Texas
Horn, W. H. ....	Dr. P. Gibson. ....	Arkansas
Howser, H. M. ....	Med. Dept. A. I. U. ....	Arkansas
Hudson, V. W. ....	W. C. Hudson. ....	Arkansas
Izard, J. S. ....	Med. Dept. A. I. U. ....	Arkansas
Jones, W. E. ....	W. M. Evans, M. D. ....	Arkansas
Kelly, W. ....	Med. Dept. A. I. U. ....	Arkansas
Kimbrow, P. K. ....	W. C. Kimbrell, M. D. ....	Arkansas
Lay, A. B. ....	Med. Dept. A. I. U. ....	Arkansas
Ledbetter, W. A. ....	Med. Dept. A. I. U. ....	Arkansas
Leigh, A. F. ....	Med. Dept. A. I. U. ....	Arkansas
Lindsey, J. R. ....	S. C. Burgess, M. D. ....	Arkansas
Love, J. D. ....	E. Bentley, M. D. ....	Arkansas
Mashburne, T. W. * .....	J. G. Morden. ....	Arkansas
Mathews, J. H. * .....	J. S. Westfield, M. D. ....	Arkansas
Meeks, E. D. * .....	J. J. McAlmont, M. D. ....	Arkansas
Mickel, F. A. * .....	W. W. Campbell, M. D. ....	Arkansas
Mitchel, J. L. ....	J. L. McFarland, M. D. ....	Arkansas
McBroom, J. P. ....	Med. Dept. A. I. U. ....	Arkansas
McCabe, W. ....	Med. Dept. A. I. U. ....	Arkansas
Ozment, S. J. ....	Drs. Brannon & Brown. ....	Arkansas

NAME.	RECEPTOR.	STATE.
Pearce, H. J. ....	J. H. Jackson, M. D. ....	Arkansas
Pleas, E. * .....	Med. Dept. A. I. U. ....	Arkansas
Powell, W. A. ....	Med. Dept. A. I. U. ....	Arkansas
Radford, W. I. ....	Med. Dept. A. I. U. ....	Arkansas
Rees, S. E. ....	R. J. Steel, M. D. ....	Mississippi
Reid, J. E. ....	Drs. Brannon & Brown. ....	Arkansas
Richardson, T. ....	Dr. W. B. Palmer. ....	Arkansas
Robertson, J. T. ....	J. F. Kincheloe. ....	Arkansas
Russell, W. H. ....	Dr. H. O. McKay. ....	Arkansas
Rust, A. ....	Med. Dept. A. I. U. ....	Prussia
Simmon, D. H. ....	Med. Dept. A. I. U. ....	Arkansas
Smith, J. L. ....	Med. Dept. A. I. U. ....	Arkansas
Stayton, T. L. ....	Dr. H. Stayton. ....	Arkansas
Stephens, L. K. ....	Dr. T. D. Bush. ....	I. Territory
Strickland, W. R. ....	Dr. G. V. Paynor. ....	Arkansas
Sweeden, L. J. ....	Dr. R. A. Miller. ....	Texas
Truitt, E. * .....	Med. Dept. A. I. U. ....	Arkansas
Tunstall, G. T. ....	W. M. Beard, M. D. ....	Arkansas
Vaughan, M. ....	Med. Dept. A. I. U. ....	Arkansas
Waters, G. A. ....	.....	Arkansas
Weatherell, W. M. ....	F. M. Baker, M. D. ....	Arkansas
Wilson, J. J. * .....	Med. Dept. A. I. U. ....	Arkansas
Woodall, G. ....	Dr. O. L. Woodall. ....	Texas
Woodyard, B. R. ....	W. H. L. Woodyard, M. D. ....	Arkansas
Wright, M. ....	C. Watkins, M. D. ....	Arkansas
Zuber, L. ....	Med. Dept. A. I. U. ....	Arkansas

\*Graduates of 1893.

## GENERAL SUMMARY.

Collegiate Department, Fayetteville.....	184
Preparatory Department.....	350
Music Pupils.....	21
Elocution Pupils.....	99
Total.....	654
Names repeated (Music, 21; Elocution, 99).. .	120
Total at Fayetteville.....	534
Students in Medical College, Little Rock.....	74
Students in Branch Normal College, Pine Bluff.....	241
Grand total.....	849

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF		1875.
Botefuhr, Laura D.....	Fayetteville, Ark.....	Mrs G. W. Schulte, Fort Smith, Ark.
Carson, Ann E.....	Jonesboro, Ark.....	Mrs. John Knight, Jonesboro, Ark.
Carson, Augusta O.....	Jonesboro, Ark.....	Mrs. T. W. Cline, Downey, Cal.
Davis, Lizzie P.....	Bentonville, Ark.....	Mrs. R. C. Brown, Florence, Arizona.
McCart, Eva.....	Fayetteville, Ark.....	Mrs. D. M. Main, Cheney, Kansas.
McKinney, Charles F.....	Ozark, Ark.....	Traveling Salesman, Ozark, Ark.
Moore, Lucy J.....	Fayetteville, Ark.....	Mrs. Ross, Cincinnati, Ark.
Putnam, Anna, A. M.....	Fayetteville, Ark.....	Teacher in Public School, Fayetteville, Ark.
CLASS OF		1876.
Bennett, Nettie, B. L.....	Fayetteville, Ark.....	Mrs. C. Boles, Fayetteville, Ark.
Gorton, Belle L., A. B.....	Aurora, Ill.....	Author, Chicago, Ill.
Gregg, Alfred W., A. B.....	Fayetteville, Ark.....	Deceased.
Harris, Agnes, A. B.....	Fayetteville, Ark.....	Mrs. Johnson, Kansas City, Mo.
Harris, Sara E., A. B.....	Fayetteville, Ark.....	{ Professor in A. I. U. for several years—Mrs. S. H. Conrad, Ocoola, Mo.
Johnson, Albert P., A. B.....	Wesley, Ark.....	Lawyer, Winfield, Kansas.
Neal, W. H., B. L.....	Van Buren, Ark.....	Lawyer, Van Buren, Ark.
Taylor, E. L., B. L.....	Fayetteville, Ark.....	Farmer, Bentonville, Ark.
Waggener, W. J., A. M.....	Farmington, Ark.....	{ Professor of Natural Philosophy, University of Col- orado, Boulder, Col.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY—*Continued.*

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TWENTY-FIRST CATALOGUE

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF		1877.
Borden, Alice.....	Fayetteville, Ark .....	
Carden, E. B., B. L.....	Bloomer, Ark .....	Deceased.
Hawkins, J. T.....	Mount Holly, Ark.....	Physician, Mount Holly, Ark.
Jennings, Edgar P., A. B.....	Fayetteville, Ark.....	Fayetteville, Ark.
Massie, Collin, A. B.....	Fayetteville, Ark.....	Principal of Public Schools, Van Buren, Ark.
Mellette, W. M., B. L.....	Fort Smith, Ark.....	Lawyer, Fort Smith, Ark.
Simms, W. D., B. L.....	Bentonville, Ark.....	Deceased.
Waggener, Annie, B. L.....	Fayetteville, Ark.....	Teacher in Public Schools, Del Norte, Col.
Walker, J. V , A. B.....	Fayetteville, Ark.....	Lawyer, Fayetteville, Ark.
Watson, Charles A., A. B.....	Fayetteville, Ark.....	Teacher, Fayetteville, Ark.
CLASS OF		1878.
Blakeley, Nora, A. B.....	Fayetteville, Ark.....	Mrs. H. M. Hudgins, Hot Springs, Ark
Gregg, Andrew S., A. B.....	Fayetteville, Ark.....	Physician, Fayetteville, Ark.
Pettigrew, Thomas A., A. M.....	Charleston, Ark .....	Lawyer, Charleston, Ark.
Reed, Maggie, A. B.....	Fayetteville, Ark.....	Deceased.
Sutton, William S , A. M.....	Fayetteville, Ark.....	Superintendent Public Schools, Houston, Texas.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF 1879		
Butler, H. M., A. B.....	Varner Station, Ark.....	Teacher, Waco, Texas.
Floyd, J. C., A. B. ....	Bentonville, Ark.....	District Prosecuting Attorney, Yellville, Ark.
Harrod, J. H., A. B.....	Lonoke, Ark.....	Lawyer, Little Rock, Ark.
Marrs, S. E., A. B.....	Viney Grove, Ark.....	Editor Democrat, Fayetteville, Ark
Marshall, J. C., A. M.....	Avoca, Ark.....	Lawyer, Little Rock, Ark.
Patton, L. Alice, A. M.....	Viney Grove, Ark.....	Teacher, Prairie Grove, Ark.
Teague, C. V., A. B.....	Toledo, Ark.....	County Judge, Hot Springs, Ark.
Wood, C. D., A. B.....	Hamburg, Ark.....	Associate Justice, Supreme Court of Arkansas.
CLASS OF 1880.		
Droke, G. W., A. M.....	Bentonville, Ark.....	Adjunct Professor of Mathematics in A. I. U.
Johnson, T. M., B. L. L.....	Wesley, Ark.....	
King, Artelle Alice, B. L. L.....	Fort Smith, Ark.....	Mrs. J. C. Belt, Brooken, I. T.
Kitchens, T. B., A. M.....	Jonesboro, Ark.....	County and Circuit Clerk, Paragould, Ark.
Langford, W. H., A. B.....	El Dorado, Ark.....	Merchant, Pine Bluff, Ark.
Patton, Mattie J., B. L. L.....	Viney Grove, Ark.....	Teacher, Viney Grove, Ark
Ross, T. C., A. B.....	Fort Smith, Ark.....	Lawyer, Fort Worth, Texas.
Russell, Lawrence, A. B.....	Russellville, Ark.....	Lawyer, Russellville, Ark., Representative.
Tillman, J. N , B. L. L.....	Fayetteville, Ark.....	District Prosecuting Attorney, Fayetteville, Ark.
Williams, Naomi J., A. M.....	Fayetteville, Ark.....	Teacher in A. I. U., Fayetteville, Ark.

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

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TWENTY-FIRST CATALOGUE

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF		1881.
Carnall, Ella, A. M.....	Fort Smith, Ark.....	Adjunct Prof. of Eng and Mod. Languages in A. I. U.
Ellis, F. W., A. B.....	Fayetteville, Ark.....	United States Signal Service, Galveston, Texas.
Moore, J. I., A. B.....	Vineyard, Ark.....	Lawyer, City Judge, Helena, Ark.
Reed, Lina, A. B.....	Fayetteville, Ark.....	Fayetteville, Ark.
Reiff, O. S., A. B.....	Magazine, Ark.....	Lawyer, Little Rock, Ark.
Watson, J. J., A. B.....	Fayetteville, Ark.....	Teacher in Australia.
CLASS OF		1882.
Booth, W. P., A. B. ....	Batesville, Ark.....	Farmer, Reyno, Ark.
Brown, W. D., A. B.....	Newtonia, Mo.....	Physician, Newtonia, Mo.
Carrigan, A. H., A. B.....	Washington, Ark.....	Lawyer, Wichita Falls, Tex.
Chausler, C. K., A. B.....	Washburne, Mo.....	Lawyer, Grant's Pass, Ore.
Cherry, W. R., A. B. ....	Patterson's Bluff, Ark.....	Cashier of Bank, Paris, Ark.
Gregg, L. W., A. B.....	Fayetteville, Ark.....	Lawyer, Fayetteville, Ark.
Hon, Daniel, A. B.....	Waldron, Ark.....	Lawyer, Waldron, Ark.
Jones, Gustave, B. L. L.....	Jacksonport, Ark.....	Lawyer, Newport, Ark.
Lanier, J. A. M., A. B.....	Mountain Home, Ark.....	Principal Mountain Home Academy, Mountain Home.
McDonough, J. B., A. B.....	Bloomer, Ark.....	Prosecuting Att'y Twelfth Circuit, Fort Smith, Ark.
McFarlane, W. R., A. B.....	Enterprise, Ark.....	Lawyer, Greenwood, Ark.
Oats, T. F., A. B.....	Russellville, Ark.....	Physician, Mexia, Tex
Pickel, J. W., A. B.....	Mulberry, Ark.....	Physician for Crystal Plate Glass Co , Crystal City, Mo.
Rogers, P. A., A. B.....	Rocky Mount, La.....	
Shell, G. C., B. L. L.....	Augusta, Ark.....	Lawyer, Lake Village, Ark.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF		1883.
Bates, C. O., A. B.....	Cincinnati, Ark.....	Professor, Coe College, Cedar Rapids, Iowa.
Cravens, Jessie, B. L. L.....	Fayetteville, Ark.....	Teacher in A. I. U., Fayetteville, Ark.
England, W. W., A. B.....	Evansville, Ark.....	United States Coast Survey.
Greaves, C. D., A. B.....	Hot Springs, Ark.....	Lawyer, Hot Springs, Ark.
Mayes, J. F., A. B.....	Fayetteville, Ark.....	Lumber Dealer, Fayetteville, Ark.
Stroup, Henry, A. B.....	Webb City, Ark.....	Editor, Roseville, Ark.
Taliaferro, Lou, B. E. L.....	Bentonville, Ark.....	Stenographer, Chicago, Ill.
CLASS OF		1884.
Anderson, L. S., B. L. L.....	Herndon, Ark.....	Clerk in Land Office, Washington, D. C.
Duncan, W. H., B. L. L.....	Conway, Ark.....	Lawyer, Conway, Ark.
Edmiston, W. L., B. L. L.....	Springfield, Mo.....	Deceased.
Gates, D. A., A. B.....	Tillar Station, Ark.....	{ County and Probate Judge of Desha County, Ar- kansas City, Ark.
Goodwin, W. P., B. L. L.....	El Dorado, Ark.....	Editor, El Dorado, Ark.
Hillis, E. W., B. L. L.....	Jonesboro, Ark.....	Lawyer, Jonesboro, Ark.
Hudson, J. H., B. L. L.....	Dardanelle, Ark.....	Teacher and Farmer, Dardanelle, Ark.
Lake, Ella, B. L. L.....	Viney Grove, Ark.....	Teacher of Music, Tahlequah, Indian Territory.
Reed, G. W. M., Jr., B. L. L.....	Fayetteville, Ark.....	Lawyer, Los Angeles, Cal
Taff, J. L., A. B.....	Waldron, Ark.....	Principal Public School, Austin, Texas.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY — *Continued.*

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TWENTY-FIRST CATALOGUE

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF 1885.		
Hart, J. C., A. B. ....	Dardadelle, Ark. ....	Lawyer, Dardanelle, Ark.
Howell, J. W., B. L. L. ....	Clarksville, Ark. ....	Cotton Buyer, Clarksville, Ark.
Kinsworthy, E. B., B. L. L. ....	Black Colony, Ark. ....	Lawyer, Arkadelphia, Ark.
Notrebe, E. P. ....	Sarassa, Ark. ....	Physician, Booneville, Miss.
Woodall, W. H., A. B. ....	El Paso, Ark. ....	President Female College, Lake City, Fla.
Woolverton, C. D., B. L. L. ....	Center Ridge, Ark. ....	Principal Public School, Sheridan, Ark.
CLASS OF 1886.		
Bates, J. H., A. B. ....	Cincinnati, Ark. ....	Lawyer, Corsicana, Tex.
Leverett, Mary, A. B. ....	Fayetteville, Ark. ....	Mrs. J. A. Taff, Austin, Tex.
Middleton, Mai, A. B. ....	Fayetteville, Ark. ....	Mrs. Robert Chasteen, Fort Smith, Ark.
Mulholland, Sara, A. B. ....	Fayetteville, Ark. ....	Mrs. J. F. Mayes, Fayetteville, Ark.
Tillar, B. J., A. B. ....	Tillar Station, Ark. ....	Lawyer, Little Rock, Ark.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF 1888.		
Bowles, Preston, C. E.....	Hancock, Md.....	W. Va. Central, Elkins, W. Va.
Crozier, William N., A. B.....	Fayetteville, Ark.....	Missionary to China
Danaher, Mike, A. B.....	Little Rock, Ark.....	Law Student, Little Rock, Ark.
Dickson, W. E., A. B.....	Magnolia, Ark.....	Teacher, Waldo, Ark.
Drake, N. F., C. E.....	Cincinnati, Ark.....	Ass't State Geologist, Geological Survey, Austin, Tex.
Flynn, W. M.....	Fayetteville, Ark.....	Teacher, Oxford Bend, Ark.
Hobbs, John H., A. B.....	Bentonville, Ark.....	Lawyer, San Antonio, Tex.
Pace, Ida, A. B.....	Harrison, Ark.....	Teacher in Methodist College, Lexington, Mo.
Polson, Alice, B. S.....	Fayetteville, Ark.....	South West City, Mo.
Powell, W. W., A. B.....	Melbourne, Ark.....	Lawyer, Greenwood, Ark.
Schoff, George C., C. E.....	Annapolis Md.....	Civil Engineer, Baltimore, Md.
Treadwell, Lee, C. E.....	Toledo, Ark.....	Ass't Engineer, J. A. C. Waddell, Kansas City, Mo.
Warren, George A., B. L.....	Hazel Grove, Ark.....	Superintendent Public Schools, Fordyce, Ark.
CLASS OF 1889.		
Aiken, Don C. B., C. E.....	Fayetteville, Ark.....	Engineering Departm't, Johnson Co., Johnstown, Pa.
Fishback, L. F., B. S.....	Fort Smith, Ark.....	Law Student, Austin.
Harrison, Grace, B. S.....	Washington, D. C.....	Fort Smith, Ark.
McNeeley, John C., C. E.....	Rackensack, Ark.....	Planter, Rackensack, Ark.
Obenshain, Ora, B. S.....	Eureka Springs, Ark.....	Teacher in Public Schools, Eureka Springs, Ark.
Slagle, Ida, A. B.....	Hico, Ark.....	Mrs. Gilbreath, Hico, Ark.
Taff, Mary, A. B.....	Fayetteville, Ark.....	Mrs. G. V. Skelton, Cedar Rapids, Iowa.

# ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

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TWENTY-FIRST CATALOGUE

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
CLASS OF		1890.
Taff, Albert G., B. C. E.....	Fayetteville, Ark.....	Deceased, 1890.
Humphrey, Gustavus A., A. B....	Fort Smith, Ark.....	Medical Student, New York City.
Gannaway, John R., A. B.....	Warren, Ark.....	Warren, Ark.
Harvey, F. L., Ph. D.....	Orono, Me.....	Orono, Me., Professor in Maine Agricultural College.
Hervey, W. Rhodes, B. S.....	Santa Anna, Cal.....	Law Student, Ann Arbor, Mich.
Morrow, Mattie M., B. S.....	Fayetteville, Ark.....	Teacher in Public School, Fayetteville, Ark.
Wheeler, John N., A. B.....	Warren, Ark.....	Merchant, Warren, Ark.
CLASS OF		1891.
Drake, C. H., C. E.....	Cincinnati, Ark.....	Geological Survey, Texas.
Horton, S. A., B. A.....	Fairview, Ark.....	Law Student, Fairview, Ark.
Martin, Mack, M. E.....	Hackett City, Ark.....	Assistant in Mechanics, A. I. U.
Newman, A. J., B. A.....	Lonoke, Ark.....	Teacher, Texas.
Patton, C. C., B. A.....	Fayetteville, Ark.....	Law Student, Ann Arbor, Mich.
Shreve, A. W., C. E.....	Farmington, Ark.....	Farmington, Ark.
Shreve, H. B., C. E.....	Farmington, Ark.....	With Johnson Co., Johnstown, Pa.
Skeleton, G. V., C. E.....	Fayetteville, Ark.....	{ Professor of Civil Engineering, Coe College, Cedar Rapids, Iowa

ALUMNI OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—*Continued.*

NAME.	RESIDENCE WHEN A STUDENT.	PRESENT RESIDENCE AND REMARKS.
	CLASS OF	1892.
Arbuckle, J. D., B. A .....	Charleston, Ark .....	Principal Public School, Magazine, Ark.
Black, J. W., B. A .....	Franklin, Ark .....	Law Student, University of Michigan.
Blackwell, W. J., B. C. E.....	Perryville, Ark .....	Perryville, Ark.
Curry, Lula, B. S.....	Fayetteville, Ark .....	Teacher, Carrollton, Ark.
Hamilton, W. J., B. A.....	Hartford, Ark .....	Principal Public School, La Grange, Ark.
Hedrick, I. G., B. C. E.....	Robinson, Ark .....	Civil Engineer, Kansas City, Mo.
Holcomb, Cener, B. A.....	Fayetteville, Ark .....	Teacher in Harrell Institute, Muskogee, I. T.
Kimball, G. H., B. C. E.....	Dardanelle, Ark .....	Auditor D & P. R. R., Dardanelle, Ark.
Pharr, J. S., B. A.....	La Grange, Ark.....	Law Student, Fort Smith, Ark.
Vaulx, S. F., B. A.....	Fayetteville, Ark .....	Memphis, Tenn.
Vaulx, Julia, B. A.....	Fayetteville, Ark .....	Graduate Student, A. I. U.
Wood, A. C., B. M. E.....	Fayetteville, Ark .....	Civil Engineer, Philadelphia, Penn.

## SCHEDULE OF COLLEGIATE RECITATIONS.

Small figures show the term during which the subject is studied.

FIRST PERIOD.	SECOND PERIOD	THIRD PERIOD.	FOURTH PERIOD	FIFTH PERIOD	SIXTH PERIOD.
I. German, M, W., Th., F. German, Si. Re., T.....	I. Psychology, M., W., F. English Philology, T..... Mathematics, M., T., W., F. Tech. Ch'mistry, M., W., F. Metallurgy, T., Th..... Botany or Zoology, M., F.	I. Adv. Geology, T., W., F. German, Si. Re., Th..... Metallurgy, M..... Military Science, W.....	I. American History, W., F. Greek, M., W., Th., F. Adv. Geology, M., Th.....	I. English, M., W., F..... Eur. History, T., Th..... Botanical Laboratory Chemical Laboratory, M., T., Th., F. Geological Laboratory. Zoological Laboratory. Drawing and Engineering Laboratory.	I. Latin, T., W., Th., F.
II. German, M., W., Th., F. Greek, M., W., Th., F. English, T..... Horticulture, M., W., F.	II. Latin, M., T., W., F. Hist. Geology, 1, M., W., F. Zoology, T., Th..... An. Chem., 1, M. — F. Mathematics, Th..... Mineralogy, 2, M. — F. Paleontology, 3, M. — F.	II. Or. Chemistry, M., W., F. Botany, M., W., F..... Polit. Econ., T., Th..... Math'm'ts, 1, 2, M., W., F. Astronomy, 3, M., W., F.	II. Entomology, M., W., F. English, M., W., Th., F. Military Science, T.....	II. Anc. History, W., F..... Logic, T., Th..... Botanical Laboratory, W., F. Chemical Laboratory, T. — F. Geological Laboratory, M., W. Zoological Laboratory, W., F. Drawing and Engineering Laboratory.	II.
III. Mathematics, M. — F. Vet. Anat., 1, M. — F. Vet. Science, 2, 3..... Agriculture, 2, 3..... Normal Studies, M., W., F. Botany, T., Th..... Chem. Phil., 3, M. — Th.	III. English History, T..... Gen. History, M., W., F. Horticult., 1, M., T., W., F. Des. Geometry, Th..... D. Hus'ry, 2, 3, M., T., W., F. Spanish Si. Re., Th..... French Si. Re., Th.....	III. Chemistry, M., W., F. Surveying, T., Th..... French, M., T., Th., F. French, Si. Re., W..... Greek, M., T., Th., F.	III. Heat and Light, T., Th. Gen. Geology, T., W., F. Spanish Si. Re., T..... Stock Breeding, T., W., F. Military Science, M.....	III. Latin, T., W., Th., F..... Botanical Laboratory, W., F. Chemical Laboratory, T., Th. Geological Laboratory and Field Work, M., S. Physical Laboratory, W. Drawing.	III. Spanish, T., W., Th., F. Botanical Laboratory, W., F. Chemical Laboratory, T., Th. Geological Laboratory and Field Work, M., S. Physical Laboratory, W. Drawing.
IV. Latin, M., T., W., F. Pedagogy, Th..... Shop or Farm, M. — F. Military Science, Th.....	IV. French, M., T., W., F. English, M., W., F. Biology, T., Th..... Mathematics, M. — F. Shop or Farm, M. — F.	IV. Mathematics, M. — F. English, M., W., F. [?] Spanish, M., T., W., F.	IV. Const. Hist. M..... Greek, T., W., Th., F. Mach. Shop, Pr., M..... Physics, T., W., Th., F.	IV. English, T., W., F..... Pedagogy, M..... Biological Laboratory, T., Th. Physical Laboratory, M. Farm or Shop Work, M. — F. Drawing.	IV. French, M., T., W., F. Const. History, Th. Military Science, M.

NOTE.—The Schedule for the Senior and Junior Engineering Students will be published at the beginning of each term.

# THE COLLEGE OF MEDICINE,

## LITTLE ROCK, ARK.

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### PROFESSORS FOR PRELIMINARY FALL COURSE.

EDWIN BENTLEY, M. D.,  
*Surgical Pathology.*

L. P. GIBSON, M. D.,  
*Minor Surgery and Bandaging.*

E. R. DIBBRELL, M. D.,  
*Physical Diagnosis.*

S. H. KEMPNER, M. D.,  
*Urinary Analysis, Microscopy and Bacteriology.*

WILLIAM L. WORCESTER, M. D.,  
*Insanity.*

NOTE.—The names of the entire Medical Faculty are given on page 12.

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THE REGULAR WINTER COURSE of lectures will begin on November 1, 1893, and continue twenty-four weeks, or until April 18, 1894.

Lectures will be delivered daily during the six days of each week.

The matriculation book will be opened from and after September 1st to students desiring to matriculate early and secure choice of seats.

THE PRELIMINARY FALL COURSE, which is given gratis to all the students, will begin on Monday, October 2, 1893, and continue to Wednesday, November 1, 1893, when the regular winter session opens.

In making this annual announcement the Faculty feel great satisfaction in referring to the continued success and prosperity of the Medical College. The cordial indorsement of the Arkan-

sas State Medical Society and the generous influence of the medical profession throughout the State are cordially appreciated and accepted by the Faculty, as an encouragement to them to continue the arduous labors they have so long and so zealously maintained.

#### AMERICAN MEDICAL COLLEGE ASSOCIATION.

In accordance with the requirements of this Association, in our announcement for 1891, we gave notice that:

After July 1, 1892, all students who had not taken a full course of lectures prior to that date, would be required to attend *three courses of lectures, of six months each, in three separate years*. Many States refuse to grant license to graduates of Medical Schools requiring but two courses of lectures.

The Faculty design to keep pace with the progress of higher medical education, and to make a diploma from the Medical College of the A. I. U. as honorable and valuable to her alumni as the diploma of any other medical college.

THE REGULAR THREE TERM COURSE has been graded as follows:

*First Term* will include Anatomy, Physiology, Pathology, Chemistry, Materia Medica and Therapeutics, Microscopy, Hygiene and Public Health, Dissections and attendance upon the Clinics.

*Second Term:* Anatomy, Physiology, Pathology, Materia Medica and Therapeutics, Practice of Medicine, Surgery, Midwifery, Diseases of Women and Children, Ophthalmology and Otology, Medical Chemistry, Toxicology, Medical Jurisprudence, and attendance upon the Clinics and Hospital.

*Third Term:* Practice of Medicine, Surgery, Midwifery, Diseases of Women and Children, Laryngology and Rhinology, Diseases of the Nervous System, Ophthalmology and Otology, Medical Jurisprudence, Dissections and attendance on the Clinics and Hospital.

## LOCATION.

The City of Little Rock, geographically and for convenience, is very happily situated, being central in the State and a goodly distance from any other large city. Its only rivals are St. Louis on the north, Memphis on the east and Galveston on the south.

It has a population of 40,000 people and upward, and has always been classed as one of the healthiest cities west of the Mississippi River. Few cities can boast of better public schools, colleges and universities, than Little Rock. All the eleemosynary institutions of the State are located here. These are the Blind, Deaf-Mute, and Insane Asylums.

## COLLEGE BUILDING.

The new structure is an imposing edifice, three stories in height, constructed of brick, and admirably arranged for the convenience of both students and instructors.

It has a large lecture hall, fine amphitheater with chairs, a library, a reading room, a museum, several private dissecting rooms, all well lighted and ventilated. In fact, it is designed to be a modern and model medical college building. It is situated on Second and Sherman streets.

## HOSPITALS.

The Little Rock Infirmary, a new institution designed solely for the treatment of acute diseases, has a capacity of fifty beds. This hospital, splendidly equipped and furnished with modern conveniences and improvements, is in the very best sanitary condition, and under the supervision and management of trained nurses—Sisters of Charity.

The Pulaski County Hospital has just been erected at a cost of some \$30,000. It is a handsome brick structure, well arranged, complete in all its equipments, and has a capacity of two hundred beds.

It is under the general direction of the Judge of Pulaski County, and is also benevolent in character. In this institution the chronic diseases and injuries of long standing will generally predominate.

Accidents from railways, marine patients, and the sick and injured from the city, county and State, find in these hospitals shelter, food, raiment, and that Christian attention so cheering and comforting in sickness and distress.

Their inmates embrace all classes and conditions of unfortunates--white, colored, male, female, adults, and children--and with them are found almost every character and form of disease, except contagious affections, which are otherwise provided for.

#### THE ISAAC FOLSOM CLINIC.

This Clinic is thus designated in honor of the personal life, friendship and interest this honorable physician and philanthropist entertained for the Medical College. He legally executed an instrument of writing endowing this Clinic with twenty thousand dollars, thus perpetuating the *Isaac Folsom Clinic* as an integral part of this department. Every student must attend this Clinic and must pass an examination on clinical instruction.

#### METHODS OF TEACHING.

Instruction in this department will be given by didactic and clinical lectures, practical work in the dissecting room, chemical and physiological laboratories, and by daily quizzes upon the subject of preceding lectures.

When the subject will admit of it, each branch will be so illustrated by means of diagrams, charts, models and instruments, as to address the understanding of the student through the medium of sight as well as hearing.

#### THE EXPENSES OF LIVING, ETC.

The expenses of living in the City of Little Rock will, of course, vary according to the views and habits of students. Good board, at the present time, including lodging, fuel and

lights, may be had, at a convenient distance from the College, at from \$4 to \$6 per week, and from \$13 to \$18 per month.

A list of parties desiring to board medical students will be found at the College building. Persons desiring further information are requested to address the Secretary of the Faculty.

#### TERMS OF ADMISSION.

Applicants must be 18 years of age and present a creditable certificate of good moral character; a diploma of graduation from a good literary and scientific college or high school or a first-class grade teacher's certificate; or, lacking this, pass a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

In conformity with Article III, American Medical College Association.

#### TERMS.

The fee for a full course of lectures will be: Professors' tickets, \$50; matriculation ticket (paid but once), \$5; Demonstrator's ticket for each course, \$5; Hospital ticket, each course, \$3; graduation fee, \$25.

No variation is made, under any circumstances, from the established fees of the College, they having been placed originally at the very lowest established figure commensurate with the interests of both student and College.

In the thirteen terms of the Medical Department, Arkansas Industrial University, there have been 738 matriculates and 172 graduates.

For more specific information and catalogue apply to

E. R. DIBBRELL, M. D.,  
*Secretary of Faculty,*  
Little Rock, Ark.

LAW DEPARTMENT  
OF THE  
Arkansas Industrial University  
FOR THE YEARS 1893, 1894, AND 1895,  
AT LITTLE ROCK, ARKANSAS.

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FACULTY.

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FRANK M. GOAR, Dean.

*Professor of Common and Statute Law.*

THOMAS B. MARTIN,

*Professor of Criminal law and Procedure.*

GEORGE B. ROSE,

*Professor of Evidence, Pleading and Practice*

WILBUR F. HILL,

*Professor of Equity Jurisprudence.*

MORRIS M. COHN,

*Professor of Law of Corporations.*

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The Law course embraces two years divided into four terms. Fall term will commence October 2, 1893 and 1894, and close January 31, 1894 and 1895. Spring term will commence February 1, 1894 and 1895, and close June 1, 1894, and 1895.

COURSE OF INSTRUCTION.

The design of this school is to afford such training in the fundamental principles of the law, as will constitute the best preparation for the practice of the profession anywhere in the

United States, and especially in the State of Arkansas. With this view the course of study, which is intended to occupy the student two years, will comprise the following subjects:

*Junior Year*:—First Term—Robinson's Elementary Law. Contracts, Bishop, Lawson. Agency, Mecham, Lectures. Partnership, Parsons, Lectures. Commercial Paper, Benjamin's Chalmers. Domestic Relations, Schouler, Lectures.

Second Term—Criminal Law, Harris. Evidence, Vol. I, Greenleaf. Code Pleading, Bliss. Judgments, Freeman, Lectures. Leading Cases. Moot Courts.

*Senior Year*:—First term—Law of Private Corporations, Cook. Municipal Corporations, Lectures. Bailments, Schouler. Insurance, Lectures. Torts, Cooley. Moot Courts.

Second Term—Real Property, Tiedeman. Equity Jurisprudence, Bispham. Equity Pleading, Langdell, Lectures. Constitutional Limitations, Cooley. Conflict of Laws, Lectures. Fraud and Fraudulent Conveyances, Lectures. Leading Cases. Moot Courts.

For the fall term students will be matriculated at any time upon satisfactory examination. Books can be purchased here. We do not think it prudent for students to devote less than two years to the foregoing course. 'He who is not a good lawyer when he comes to the bar, will seldom be one afterwards,' is a saying full of truth.

Thought as well as reading is necessary to the proper understanding of our system of jurisprudence. No man can hope to be a great lawyer by the cramming process. While students are advised not to attempt to complete the full course in a single year, yet if one chooses to make the effort, and has acquired sufficient knowledge of the law from previous reading, he will be admitted to the graduating examination, and if he attains the standard required, he is entitled to his degree. Every candidate for the honor degrees will be required to attend the full term of two years.

## EXPENSES.

Tuition, \$50 per session, payable \$10 in advance, and \$5 per month thereafter during the session. Books will cost from \$20 to \$30 per year. Board from \$15 to \$20 per month. By club system, where the students do their own work, from \$6 to \$10 per month.

Cheap lodgings may be obtained by advising with the Dean of the Faculty before the opening of the session, and the cost of living need not be greater in Little Rock than elsewhere in the State.

Many reasons may be given why young men contemplating the practice of law in Arkansas should patronize their own law school. First, in the application of the elementary principles of law in the practice, the reference books must be in the main to the laws of the State where the law school is located, as found in the Constitution, Statutes, and Supreme Court Reports of the State. Second, emulation and class organization will do much for the law student.

The old way of serving a term in a private law office of a senior at the bar is fast yielding to more modern and better methods.

"The time has gone by when an eminent lawyer in full practice can take a class of students into his office and become their teacher. Once that was practicable, but now it is not. The consequence is that law schools are now a necessity."—*Chief Justice Waite.*

Again, the associations and friendships formed with representative young men throughout the State are invaluable in many respects to the practitioner.

## EXAMINATIONS.

Written examinations are held each term in the presence of a member of the Faculty upon questions handed the student at the time, and on the merit of their papers students will be graded carefully. Diplomas and degrees will be awarded by the Board of Trustees the recommendation of the Faculty.

Those of the Senior Class who attain a sufficiently high grade on their examinations will be entitled to the degree of Bachelor of Laws.

Every candidate for this degree is required to file with the Faculty an essay or thesis upon some topic connected with his studies.

#### MOOT COURTS.

Moot Courts are held from time to time during the term, in which students discuss cases previously assigned them for that purpose by the Professor. These courts are presided over by the Professor, who, at the conclusion, reviews the arguments and gives his decision upon the points involved. The effort here is to make not merely theoretical but practical lawyers; not to teach principles merely, but how to apply them. To this end the Moot Court is made the forum for the discussion of such practical questions as most frequently arise in a professional career at the bar; and the attention of the students is directed not less to the application of the points discussed in actual cases, than to the elucidation of the legal questions. An opportunity is afforded all the Senior students to participate in this court, and to all Junior students of the second term.

Moot Courts are conducted on the theory that certain facts are true, and that the only subject open to discussion is the rule of law to be applied to them. The student, having obtained from the Faculty a statement of facts, is required to prepare pleadings, and draw up a brief in which the rules of law are stated under appropriate divisions and sustained by authorities which he proposes to rely upon in his oral argument.

The pleadings are submitted to the Professor. He calls the student's attention to such errors as may exist, and gives such other practical information as he may deem advisable.

## PROFESSIONAL ETHICS.

While endeavoring to impart legal knowledge, the fact will not be lost sight of that a high moral standing is a most important requisite to a successful and honorable career, and no pains will be spared in impressing this fact upon students and inculcating a high tone of professional ethics and action.

The transfer of the Law Department of the University from Fayetteville to Little Rock was advised because Little Rock is centrally located, easy of access, and is the seat of government, with a full complement of courts, State and Federal, with an able bar; and last but by no means least, the Supreme Court Library is as large, if not the largest law library west of the Mississippi River. We have arranged for regular students to have access to this magnificent Library of the Supreme Court.

We have no doubt the transfer will be a very decided benefit to the students, and the cost of living to young men who are in real earnest about learning the law, need not be greater here than elsewhere.

For further information address     F. M. GOAR, Dean,  
Little Rock, Ark.

## THE BRANCH NORMAL COLLEGE.

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### FACULTY.

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#### NORMAL DEPARTMENT:

J. C. CORBIN, A. M.....	Principal.
JAS. C. SMITH.....	First Assistant.
ALICE A. CHILDRESS.....	Second Assistant.
THOS. G. CHILDRESS.....	Third Assistant.

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#### MECHANICAL DEPARTMENT:

C. V. KERR.....	Superintendent of the Mechanical Department.
W. S. HARRIS... Ass't	Superintendent of the Mechanical Department.
A. E. Smith.....	Machine and Blacksmith Shops.
LORENZO ELLIS.....	Engineer.

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#### GENERAL STATEMENT.

The Branch Normal College is a Department of the Arkansas Industrial University, established pursuant to an act of the General Assembly of the State of Arkansas, approved April 25, 1873, and has been in operation since September 27, 1875. Its primary object is the training of teachers for efficient service in the colored public schools of the State—the law referred to having been enacted with special reference to the “convenience of the poorer classes.” For the purpose of carrying out the intent of the law, by enabling those who wish to avail themselves of its advantages, there is no charge for tuition for appointees; the only requirements for admission being suitable age and qualification, and appointment from one of the County Judges, and the payment of the entrance fee of \$5.

## LOCATION, ETC.

The school property consists of a beautiful tract of twenty acres of ground, in the suburbs of Pine Bluff, Jefferson County, Arkansas, and a few rods from the junction of the Little Rock, Mississippi River & Texas and "Paramore" Railroads. The school building, completed in 1881, and occupied January 30, 1882, is one of the handsomest educational edifices in the State, as well as one of the best, being warm and comfortable, well lighted and ventilated. It contains one large assembly room, four recitation rooms, and cloak rooms for males and females. The building is of brick, with slate roof and trimmings of Alabama granite, and cost, with improvements and furniture, \$12,000. The furniture and other equipments are of the best modern style.

The Dormitory for female students is under the supervision of the Principal and his wife. It is a handsome brick structure sufficient for the accommodation of thirty or forty students. Board bills are payable monthly in advance, and no deduction is made for loss of time less than one week. Girls staying in the Dormitory are required to keep their own rooms and the halls clean, and to assist, in turn, in the dining room and kitchen. They are expected to furnish their own bed linen, and are held responsible for all damage to furniture in their rooms. They are not to visit each others' rooms, except by invitation from the occupant, and two are expected to occupy one room. They are not allowed to change rooms, nor to visit in town except by permission. The charge for board, fuel and light thus far has been eight dollars per month, in advance, and, if possible, that price will be continued.

The shop building was completed in February, 1892. It is of brick and covers a plat of ground 70x70, comprising a wood-shop 35x35, a foundry 25x25, a blacksmith-shop 25x25 and a machine-shop 35x25. A boiler-room 20x25 and a court 35x20 occupy the remaining space. The shops will accommodate

sixty students at one time. During the past year the entire attendance was 241.

#### NORMAL DEPARTMENT.

The design of this Department is to train teachers for the common schools of the State.

Applicants must pass a satisfactory examination in the common English branches in order to enter this Department.

In addition to a thorough knowledge of the branches to be taught, the work comprehends :

1. Training in methods of imparting instruction in the branches to be taught.
2. Methods of leading pupils to think and investigate for themselves.
3. How to grade and organize the various kinds of schools.
4. Government or discipline of schools.
5. Duties of teachers as governed by School Law.

By the laws of the State, the appointment of students to the Branch College, in numbers from each county in the State, is the same as to the University at Fayetteville. The power is vested in the County Courts; but any vacancies occurring during the vacations of the court, shall be filled by the Judge of the County Court.

All the students thus appointed are entitled to four years' free tuition, upon the payment of five dollars matriculation fee, *in advance, at the time of entering the school.*

All Beneficiaries and Normal students should be at present the opening of the Autumn Term; and unnecessary delay, either of old students returning or of new ones reporting, *will lead to the forfeiture of their appointments.* The strictest attention to study, and most exact punctuality in attendance on recitations and all other duties, are made the conditions of every student's continuance at the institution. Appointments are *not transferable.*

The course of study in this Department is intended to be fully equivalent to the usual college course up to and including the Sophomore year. In the subsequent course of two years the usual studies of the Junior and Senior years are included. Eleven classes have graduated, and, as will be seen in the list of Alumni are now occupying prominent positions. The Institution has a good library of over 2,000 volumes, a reading-room well supplied with current literature and a valuable supply of physical apparatus. There is also a good collection of typical minerals.

#### DEPARTMENT OF MECHANIC ARTS.

The shops of the Branch Normal College are built and equipped for the purpose of giving the colored boys of our State a chance to make themselves useful by learning to be carpenters, pattern-makers, moulders, blacksmiths, machinists, and engineers or firemen.

While learning the basis of his trade, the student acquires a good knowledge of Language, History and Drawing. Throughout the course of four years in the shops, the student spends an average of ten hours a week in actual labor; and, while the amount of time spent in the shops seems small, experience has shown that students under constant instruction from skilled teachers and passed from one exercise to another as soon as the work is well done, make very rapid progress:

We are therefore prepared to offer:

(a.) A course in general shop work extending over three years, followed by a fourth year's work in one of the shops selected by the student. The design is to enable a young man to choose his trade intelligently and to acquire a sound basis for it.

(b.) A three years' course in general shop work followed by a fourth year's work in the management of boilers, engines and heating systems. This course is intended to train young men for the practical work of firemen and engineers.

(c.) A course in general shop work extending over three years, together with class-room work in the theory and practice of teaching, followed by a fourth year's work in handling classes in the shops and in laying out series of practical exercises.

These shops have a very superior equipment as will be seen from the annexed statement:

*Wood Shop.*—The equipment already secured includes 12 benches with complete sets of carpenters' tools, a double-circular sawing machine, a scroll saw, a buzz planer and six wood turning lathes.

*Foundry.*—A Collian cupola capable of melting  $1\frac{1}{2}$  tons of iron per hour is in position, and the remainder of the outfit will be added shortly. It will include ladles, moulders' tools, flasks, core oven and rumble, etc.

*Forge Shops.*—Twelve Buffalo forges are in position, the blast being supplied by a blower, and the smoke drawn off by a large exhaust fan. Besides the usual outfit of anvils, hammers, tongs, etc., there is a Buffalo punch shear and bar cutter capable of cutting off 1 inch bar iron  $\frac{1}{2} \times 3$  inch strap iron, or of punching a  $\frac{3}{8}$  inch hole in  $\frac{3}{8}$  inch iron.

*Machine Shop.*—Among the tools already ordered and partly in place, are a 15 inch crank shaper,  $24 \times 24 \times 6$  feet planer, 20 inch drill press, 15 inch  $\times 5$  feet turret lathe,  $18 \times 6$  inch engine lathe, 14 inch  $\times 6$  feet engine lathe, 12 inch  $\times 5$  feet hand lathe, universal milling machine, cutter and reamer grinder, twist drill grinder, power grindstone, etc.

*Heating and Power Plant.*—Two vertical engines of 12-horse power each are in position, also two 30-horse power tubular boilers. The piping for feed water is so arranged that the water passes from either pump or injector through a feed water heater to the boilers; and the exhaust piping is so arranged that the exhaust steam from the engines can be used either to heat the feed water or to heat the shops.

*Water Supply.*—In the court of the shop building, a 4 inch Cook tubular well has been put down which will furnish 1000 gallons of water per hour. A Cook pump delivers the water to a tank 30 feet above ground, holding 8000 gallons.

Materials and tools will be furnished to students taking shop work. When necessary, however, each student will be expected to provide himself with a blouse and overalls to work in.

#### EXPENSES.

The expenses of a student at the Branch Normal College need not exceed the amount herein stated :

Board in private families, including fuel, light and washing, can be had from eight to ten dollars per month. A Normal student pays five dollars entrance fee, which entitles him to free tuition for four years.

Books may be purchased at Pine Bluff at the purchaser's usual retail price. Quite a number of students have paid a part of their board by labor in private families.

Non-beneficiary students will be charged the sum of one dollar per month for tuition, payable in advance.

In addition to the regular class exercises laid down in the curriculum of study, there are regular lessons in vocal music, which are open to all the students. The general exercises also include a review of the Sabbath-school lesson, review of the events of the week, Calisthenics, Music and Drawing. Music upon instruments, the Organ, Piano, Flute, Guitar, etc, is extra, but very reasonable in price. There are two Literary Societies, the Junior and Senior, which hold weekly meetings and afford excellent opportunities for practice in oratory, debate and composition. It is required that every student shall become a member and attend the meetings of one of the Societies.

The length of the vacation allows the advanced students an opportunity to engage in teaching, and a large proportion of

their number have done so during the last five years. In nearly all cases they have given good satisfaction and conduct their schools with a fair degree of success.

All further information and blanks for appointments may be obtained by application to the Principal.

J. C. CORBIN, A. M.,

Pine Bluff, Ark.

